

Making staff count

Effective strategies to develop numeracy in local authorities

Sue Southwood and Linda Dixon



Produced by NIACE on behalf of the Local
Government Group

Copyright © 2011 National Institute of Adult
Continuing Education

(England and Wales)
21 De Montfort Street
Leicester
LE1 7GE

Company registration no. 2603322
Charity registration no. 1002775

All rights reserved. No reproduction, copy or
transmission of this publication may be made without
the written permission of the publishers, save in
accordance with the provisions of the Copyright,
Designs and Patents Act 1988, or under the terms
of any licence permitting copying issued by the
Copyright Licensing Agency.

NIACE has a broad remit to promote lifelong learning
opportunities for adults. NIACE works to develop
increased participation in education and training,
particularly for those who do not have easy access
because of class, gender, age, race, language
and culture, learning difficulties or disabilities, or
insufficient financial resources.

You can find NIACE online at **www.niace.org.uk**

Visit our bookshop: **<http://shop.niace.org.uk>**

Photo credits:

cover: Shutterstock; pages 3, 4, 5, 10, 11, 12, 15, 16:
Fotolia; pages 8, 9, 11, 13, 14, 17: Socialstock

Contents

INTRODUCTION	04
THE CONTEXT	05
THE BENEFITS	06
WHY NUMERACY?	07
Top ten numeracy skills needed at work	07
Killer facts for numeracy	07
WHO CAN HELP?	08
Examples of short courses	08
GETTING STARTED	09
KEYS TO SUCCESS	10
CASE STUDIES	
Numeracy online	12
Workforce savings	13
Overcoming fears	14
Championing numeracy	15
A measured approach	16
Shaped to fit	17
USEFUL WEBSITES	18

Acknowledgements

Thanks to the Local Government Association for funding this project and work on this booklet.

Thanks also to all the local authorities who kindly shared their experiences to help with the development of this booklet.

‘Adults with strong numeracy skills have better health, stronger and more varied employment prospects, higher earnings, easier access to training opportunities and to higher level qualifications, and better access to good housing.’

Carpentieri, J. D. and Litster, J. (2009)
Adult numeracy: A review of research; New
Philanthropy Capital (2010) *Count me in*.



Introduction

The workplace is an ideal place for adults to learn and to encourage learning. This booklet outlines the benefits of addressing numeracy and shows how some local authorities have created opportunities for numeracy learning. Supporting and developing numeracy can help improve staff performance, leading to better services and more efficient ways of working. We hope that senior managers, HR managers and elected members will use this booklet to focus on the workplace as a site for numeracy learning.



The context

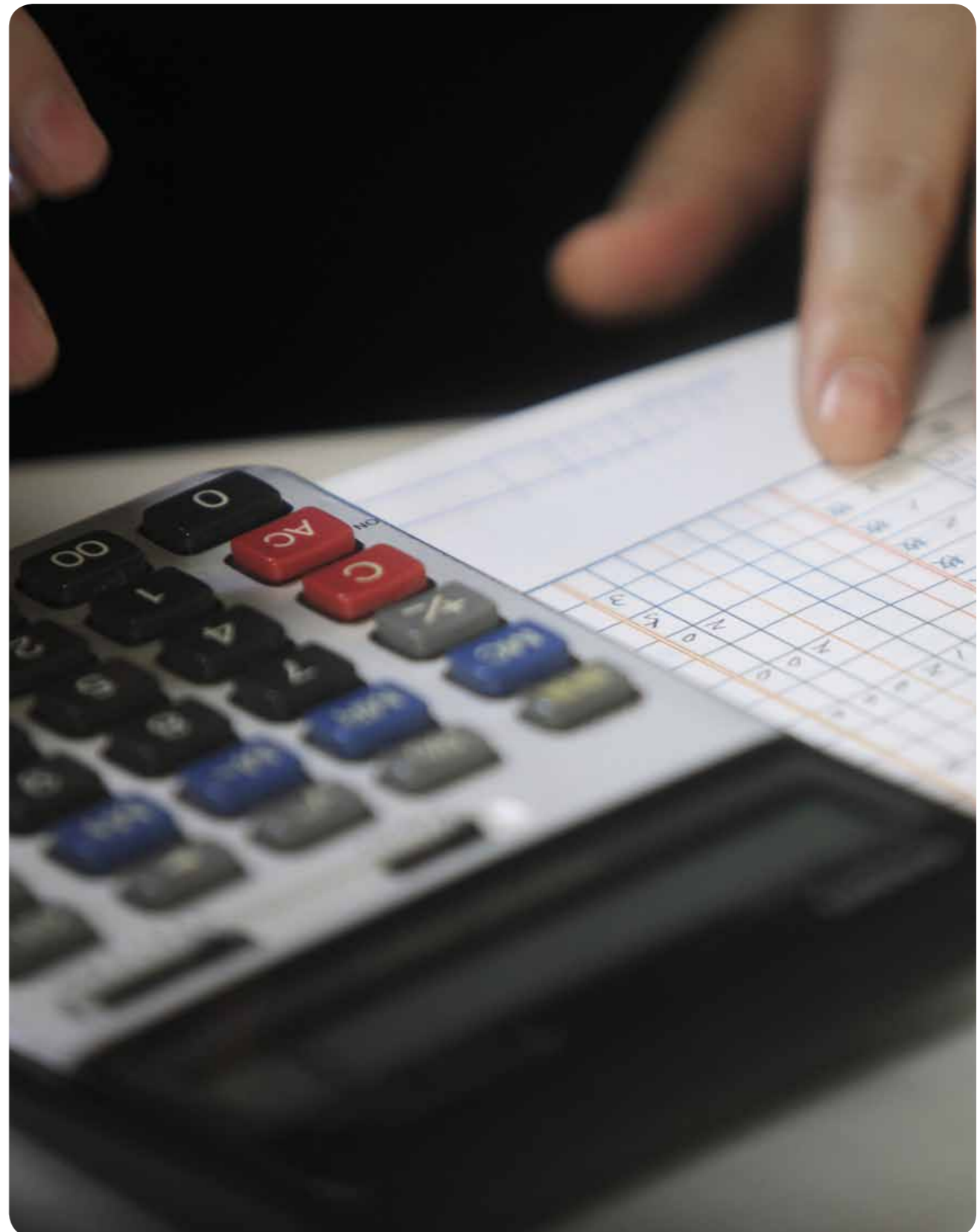
The way local authorities deliver services to their communities is changing. The shift towards a localised approach means that staff will need to be more adept at understanding and interpreting local needs in order to respond effectively. Divesting services to local groups and businesses will call for a greater need to understand finance as staff play a greater role in local economic planning. Finally, the move to greater transparency also means that local authority staff in contact with the public need to understand and talk with confidence about the wide range of financial information in the public domain.

This is against a background of low achievement in numeracy during the last ten years of the Skills for Life Strategy. More needs to be done to encourage adults in the workplace to improve numeracy, and there is a continued government commitment set out in Skills for Sustainable Growth (2010): “We will continue to support those who left compulsory education without basic literacy and numeracy skills through providing free training through the further education and skills system, including in the workplace.”

Many local authorities are already committed to enabling their staff to achieve a Level 2 qualification in numeracy.

Equivalent levels of numeracy and example skills

Adult Numeracy Entry Levels (1–3)		<i>For example, complete a stock control sheet or a simple timesheet</i>
Adult Numeracy Level 1	GCSE D–G	<i>For example, understand a payslip</i>
Adult Numeracy Level 2	GCSE A* – C	<i>For example, select and compare different prices and measurements</i>



The benefits

Improving numeracy can contribute to reducing the percentage of councils reporting critical gaps in the skills they need for future success. Many councils have recognised that improving the literacy and numeracy skills of frontline workers has a positive impact on the quality of service delivery.¹

There are many associated benefits with confident numeracy, supporting staff with numeracy can:

- improve their confidence in tackling numeracy-related tasks at home and at work;
- improve overall confidence in their ability to learn;
- improve their view of the organisation;
- support them to take an active part in the workplace;
- increase applications for internal promotion opportunities and job progression;
- improve staff retention;
- reduce staff absenteeism;
- support progression to further education and training; and
- develop a learning culture.

‘Workplaces have always been sites of learning and every workplace creates its own unique version of a learning environment. In these environments, learning takes place in a range of different ways along a continuum that stretches from formalised activity at one end (e.g. a supervisor showing an apprentice how to change the settings on a machine on the factory floor) through to a group of employees discovering the answer to a problem by informal discussion round the water cooler.’

Lorna Unwin, Alan Felstead and Alison Fuller (Institute of Education, University of London; Cardiff University; University of Southampton) (2007) *Learning at work: Towards more ‘expansive’ opportunities.*

¹ LGE (2010) *The Local Government Workforce Strategy: Delivering through people.*

Why numeracy?

There are clear links between improved numeracy and increased success for individuals at work and at home. Many adults see the numeracy they can do as common sense, but anything they find difficult they regard as maths.

TOP TEN NUMERACY SKILLS NEEDED AT WORK

- 1 Arrive at work on time and plan the use of time effectively.
- 2 Write down sequences of numbers accurately.
- 3 Understand the importance of accuracy in number calculations.
- 4 Make calculations using addition, subtraction, multiplication and division.
- 5 Make necessary calculations of fractions, decimals and percentages.
- 6 Weigh and measure to required tolerances.
- 7 Use calculators.
- 8 Use estimating skills.
- 9 Make money calculations, including checking pay information accurately.
- 10 Calculate area and volume accurately.



KILLER FACTS FOR NUMERACY

- *A fifth of adults in England do not have the basic numeracy skills needed for everyday life.*
- *More than 6 in 10 of those in routine or semi-routine jobs have lower-level numeracy skills.*
- *Lower-level numeracy skills are associated with lower wages: on average, individuals with fair or poor (Entry 3 or lower) skills earn roughly £8,000 less than those with Level 2 numeracy or above.*
- *Individuals with Entry 3 numeracy are less than half as likely as those with Level 2 or above to earn more than £20,000 a year before tax.*
- *People who reach adulthood with poor skills are far less likely to receive work-related training, get a promotion or receive a raise.*
- *Approximately a third (35 per cent) of employers describe their skill levels as good.*
- *Around 40 per cent of employers are concerned about employees' basic skills.*

Carpentieri, J.D. and Litster, J. (2009) *Adult numeracy: A review of research*; DfES (2003) *Skills for Life Survey*; Bynner, J. and Parsons, S. (2006) *New Light on Literacy and Numeracy*; and CBI (2008) *Making It All Add Up*.

Who can help?

Encouraging positive role models for maths and numeracy learning will help staff to see the importance of addressing any skills gaps and to help them take a step back into learning. Learners from the London Borough of Barking and Dagenham were asked whether anything had ever stopped them from applying for a course or developing a skill or interest. The four most significant barriers to learning were:

- family commitments;
- lack of time;
- lack of confidence; and
- lack of skills/qualifications.

Research from the National Research and Development Centre for Adult Literacy and Numeracy (NRDC) tells us that it is not complacency that prevents adults from joining numeracy classes, but fear. Therefore, managers, peers, learning champions or union learning reps (ULRs) can play an important role in encouraging adults to return to numeracy learning.

In consultation with other stakeholders, work out what best suits your organisation. This could be:

- ✓ Short courses
- ✓ Intensive courses
- ✓ Ongoing support
- ✓ Independent study
- ✓ Coaching and mentoring
- ✓ Targeted courses
- ✓ Courses using multimedia
- ✓ Flexible course times allowing for shift patterns
- ✓ Informal learning
- ✓ Tasters
- ✓ Get On at Work
- ✓ BBC Skillswise

There is no one approach; you may want to target certain departments who have a more obvious need or adopt a whole-organisational approach with a thorough training needs analysis. It is important to work closely with colleagues and listen to their particular needs and concerns – not to impose a ‘one size fits all’ model. Listen to what staff want and consult them from the outset. Setting up learner forums is one way of ensuring learners have an opportunity to influence what happens in the workplace classroom.

EXAMPLES OF SHORT COURSES

- Work out wage slips
- Understand your pension
- Use a calculator with confidence
- Manage budgets



Getting started

Decide on your key drivers for improving numeracy as this will determine what you want to achieve. Start by raising awareness of numeracy issues with key stakeholders and consider setting up a steering group to drive your strategy.

- Agree the principles of entitlement to learning.
- Agree funding streams and responsibilities between key partners.
- Ensure marketing materials are relevant and positively encourage staff to develop their skills.
- Collect some baseline data so that you can measure improvement.
- Put in place an appropriate structure for initial advice and guidance including assessment and support.

A good place to start is to take the fear out of numeracy and offer flexible and fun activities for everyone to get involved with. Ensure key people in your organisation are clear on the benefits to the whole organisation. Ideas to consider are the following:

- ✓ Download a free session plan from www.maths4us.org to promote Maths Messengers.
- ✓ Run fun sessions on Learning at Work day.
- ✓ Hold roadshows, open days or short talks on numeracy
- ✓ Organise a Sudoku day with prizes.
- ✓ Give presentations on killer facts to key stakeholders.
- ✓ Put up posters, or make up leaflets or quizzes to raise awareness.
- ✓ Organise a BBC Skillswise day where staff have a go at online modules.
- ✓ Celebrate achievement in numeracy with awards ceremonies or in newsletters or on the intranet.



Keys to success

- Strategic drivers with a specific commitment to numeracy.
- Senior-level staff buy-in to promote the importance of improving numeracy skills.
- The enthusiasm and support of peers, managers, union learning reps (ULRs) or numeracy champions with excellent communication skills.
- Managers, learning champions, and ULRs taking Level 2 numeracy tests themselves.
- Work with in-house provision or form partnerships with learning and skills providers in the community.
- Provide incentives to encourage employees to take a first step.
- Adopt an effective marketing strategy that promotes the benefits of improving numeracy skills.
- Use Adult Learners' Week for tasters and fun activities.
- Use Test the Organisation (see page 12) to raise awareness and encourage all staff to have a go.
- Offer a range of flexible opportunities.



Case studies

The following case studies show how six local authorities have made a difference in numeracy and their keys to success.



Numeracy online

Kent County Council is one of the largest councils in England and employs over 45,000 people. The work to improve the numeracy skills of council staff began in Adult Learners' Week 2007 with Test the Organisation. Staff at every level were invited to take part in events across a range of departments. At Head Office, 50 senior managers took part in an event aimed at raising awareness of what constituted a Level 2 skill in numeracy (and literacy), and to provide the chance for employees to self-assess their own skills.



Participants took part in an online quiz using voting technology to give their answers. The technology allowed people to give answers anonymously. Feedback revealed that staff enjoyed the 'interactive and confidential approach' of the technology which gave them the confidence to 'have a go' and answer each question. Individuals could request their own scores after the event. None of the participants answered all the questions correctly and it raised awareness about the need for staff at all levels to improve their skills. The event was expanded to take in other departments and staff at all levels, including Community Wardens and Social Services staff, and incentives such as a prize draw for an iPod and a free lunch encouraged people to participate. As a follow-up to this activity, school cooks, teaching assistants and commercial services staff undertook Level 2 courses. Follow-on from the events depended very much on the enthusiasm of individual managers to take the work forward.

'The impetus to improve skills has led to an acceptance of the benefits of adult learning and signposting to further learning.'

An evaluation survey of staff who undertook a short numeracy course to improve their skills found:

- 94 per cent said the course had improved their confidence to some extent; and
- 83 per cent said that taking part in the course had impacted positively on their work.

Staff reported a variety of motivational factors including to update knowledge for their current job role, to improve qualifications or to progress in their career. Additional reported benefits included helping children with homework and providing a springboard to further study.

One of the biggest drivers for staff to improve their numeracy skills was a review of administrative staff, where a requirement for Level 2 literacy and numeracy skills was introduced. The impetus to improve skills has led to an acceptance of the benefits of adult learning and signposting to further learning. Staff taking part in learning are encouraged to spread the word about what is available and how it can help.

To help reduce the 'fear' factor of maths and enable staff to learn at a time suitable for them, Kent has developed an online blended learning course for numeracy. The resources are available without the need to sign up for the whole course and have helped to promote independent learning.

For information on Test the Organisation, go to www.move-on.org.uk/testthe.asp

Workforce savings

South Holland District Council needs to make efficiency savings and a numerate workforce can make a difference in real terms to the survival of the Council.

Jeff Goodley, Lifelong Learning Co-ordinator for Unison, has recently achieved Level 2 numeracy alongside eight of his colleagues. Jeff previously worked as a Key Skills tutor and realised the need to improve employees' numeracy skills. Having identified a very small amount of funding left over in the TUC budget, he decided to seize the opportunity to use the money to make a difference. He collaborated with Chris Donkin, the TUC contractor for Test the Organisation, and Boston College to use the money (£600) for marketing and for 'incentives' to persuade people to take part in the test. They also offered gift vouchers for local retail stores and a free lunch from a well-respected local restaurant. Posters were displayed in every department of the Council and the initiative was promoted widely on the intranet and by senior staff. Everyone who came forward to do the test was entered into a draw and the department that won was given a donation for its favourite charity.

‘They also offered gift vouchers for local retail stores and a free lunch from a well-respected local restaurant. Posters were displayed in every department of the council and the initiative was promoted widely on the intranet and by senior staff.’

Ten per cent of the organisation came forward to take the test and there were unexpected findings. Jeff was surprised to find that the test demonstrated numeracy skills well below Level 2 across all departments, including management, clerical staff, customer services and manual workers. Every job advertised by the Council requires 5 GCSEs or Level 2 equivalent in maths and English. The data provided him with the evidence that a large proportion of the council's employees did not have numeracy skills at Level 2. Jeff approached the college who agreed to deliver numeracy learning up to Level 2.

As a result, nine employees passed the Level 2 National Test in Numeracy. Comments such as, 'my goodness, this is hard', were heard and the course challenged those taking part. Jeff has built up a good relationship with the HR team and has been able to talk to colleagues at all levels in the Council to engage them in learning, including the Chief Executive and Corporate Directors.



Overcoming fears

At **Blackpool Council** more employees have passed the National Test in Numeracy than Literacy. However, successes for both are substantial: 474 for numeracy and 462 for literacy. The committed team of ULRs have been integral to this success. Elizabeth Bullen heads up the Learning Partnership, Unions2Learn and co-ordinates the work of the 20 ULRs across the council.



Blackpool Council was the first authority in the area to achieve Go Award status in December 2007 and it signed up to the Skills Pledge in 2008. Both are drivers for a strategic approach to skills improvement. A major challenge has been to help staff overcome the fear factor. A typical response was, 'I hate maths', or 'Don't ask me to do maths'. Many of the learners had negative experiences in compulsory education which they did not want to re-visit. All ULRs have gained Level 2 in both literacy and numeracy, so they can understand other people's experiences and feelings towards learning and particularly towards maths. It is very powerful to be able to say to a colleague 'I've just passed mine and if I can do it so can you'. Another approach has been to encourage people who have made progress in literacy or taken another first step into learning to also improve their numeracy.

ULRs are in an excellent position, working alongside their colleagues to understand their previous experience of learning, their commitments at

home and work, as well as their confidence levels. They can build on people's positives and encourage them to overcome any fear of maths.

All ULRs have trained as Credit Union Champions, and as such use their own numeracy skills to help others with financial difficulties. The Credit Union was established by the Council's Financial Literacy Group, formed in 2005 to support employees and residents of Blackpool to become financially competent. It led to a Financial Inclusion Strategy for Blackpool, 'Count Me In', launched in April 2010.

ULRs support the group by providing information and application forms for the Credit Union which are part of their toolkit, as well as contact details for the Council's Employee Assistance Programme. Some ULRs are trained to deliver the 'Money Made Clear' programme developed by the Consumer Financial Education Body. The 'Regional Learning and Skills for All Fund' and Blackpool Council jointly funded a full-time secondment for a ULR to work as a Financial Inclusion Officer. As a result he won the National Go Numeracy Award for his use of numeracy in a financial context. Duties include supporting colleagues to:

- gain budgeting skills;
- work on a one-to-one basis with colleagues until confident enough to join a group;
- visit Unison members on long-term sick leave along with the Unison Welfare Officer to offer support, often resulting in identifying/resolving debt issues and returning employees to work quickly;
- signpost employees to Citizens Advice Bureau and Advice Link to resolve debt issues; and
- promote Credit Union benefits and membership to employees.

This work has helped raise the financial capability of many Council employees.

Championing numeracy

St Edmundsbury Council has recently joined up with its neighbouring district council, Forest Heath. A team of four ULRs from Unison has recruited a team of 12 Learning Champions from all departments of the council to work alongside them in promoting learning opportunities to the workforce. Craig Young, employed as a gardener, also works as the Unison Learning Co-ordinator. As a gardener, Craig works in isolation, but his role as Learning Co-ordinator has made him much more visible to the workforce through a secondment to HR for two days per week.

The Council is aware of the benefits of a more numerate workforce and has shown its commitment through Sandra Pell, who is Corporate Director of Economy and Environment. Sandra has become a Learning Champion and, as such, is able to support learning both strategically and informally.



Both local authorities have signed up to the Skills Pledge and St Edmundsbury Council has picked up the Workforce Development Award 2010 from the East of England Regional Council for Local Government Services. The kudos of winning the award has helped to encourage others into learning and to assure them that they are doing something that has been officially recognised. The Skills Pledge has ensured management commitment to the ULRs and Learning Champions.

Craig has noticed that employees have different attitudes to numeracy, and while many feel they don't need to do any further learning, through discussion it transpires that there is a lot of fear around numeracy learning. The ULRs themselves have all passed Level 2 numeracy and are able to assure those who might be interested that adult numeracy classes are very different to their previous experiences of learning at school.

Numeracy plays an important part in staff working efficiently. In the Landscaping Department, supervisors have to order the right amount of seed and plants and order chemicals to treat football pitches. They need quantity analysis skills. Some of the supervisors who have struggled with numbers, for example, in ordering materials from suppliers can now work out quantities and volumes accurately. If they order too much there is wastage, and if they don't order enough the Council will be paying more per unit than they need to, because the supervisor didn't get it right first time. Once staff start to feel a lot more confident about their numeracy skills, there is a real buzz. They have taken on something that was frightening before; they really feel proud that they have achieved something. Craig feels it is important to let people know the courses are available, they can do it voluntarily, they aren't being forced to do it and the Council will allow them time to do it. Information about learning is cascaded through management and team meetings.

The organisation puts a lot of resource into promoting learning for Adult Learners' Week, and employees get an hour off to do a taster session of any kind of learning. Last year a cash grant from Unionlearn meant that they were able to offer prizes such as a laptop and MP3 player in a draw as an incentive to learn. Nine employees qualified at Level 2 in numeracy. A news sheet was launched this year providing case studies of other employees who have improved their skills, and information about what is available.

Craig is now focused on the future and looking into how to provide Level 3 learning opportunities in the form of Foundation Degrees through the Open University.

A measured approach

Two years on from signing up to the Skills Pledge, work at **Bristol City Council** to develop a whole-organisation approach to improving the numeracy skills of their employees has just taken off. Prior work in this area has been sporadic and promotion of it depended on individual managers or trade unions. A proposal written for senior management that linked to the Skills Pledge resulted in the establishment of a Skills Board. The Board meets every two months and is supported by the Deputy Chief Executive, chaired by Jane Taylor, Service Manager for Communities and Adult Skills, and attended by representatives from the Council's Learning and Development Team, Regeneration, the West of England Partnership and trade unions.



Poor numeracy skills are having a much higher impact in some council departments than others. The Council particularly wants to raise the standard of numeracy skills in Health and Social Care to ensure that staff can safely fulfill their job roles. However, managers have found it difficult to insist that staff take up discrete numeracy provision opportunities, as this requirement is not included in employment contracts and employees have requested that numeracy training is embedded in the work that they do.

A restructure has meant that all training is now funded from one corporate budget. Partnership working with trade unions and the

Council's Economic Regeneration Team and Learning Communities Team has provided in-house training, such as Skills for Life and beginner ICT for caretakers. This enables them to work more closely with the Learning and Development Team who make direct links to each directorate at the council. Together they have planned to deliver five courses from November 2010 to March 2011. The Learning Communities Team will use their funding to provide the five courses, while the Learning and Development team and trade unions identify and signpost participants from particular departments at the Council. If this is successful, they will pay a contribution to the cost of any future courses, allowing the delivery to be more flexible.

Jo Weenink is Development Worker for The Learning Communities Team and leads on Learning for Work. She is aware that numeracy skills are key to many roles at the council and says:

'In the job of Park Warden there is a lot of numeracy embedded into horticulture, for example, wardens have to work out quantities of manure for flower beds quantities of plants and bulbs to order and mixing weed killer in the right proportions.'

Caretakers for schools, neighbourhood centres and housing have a responsibility under health and safety, dealing with chemicals for cleaning; managing costs. There could be a real benefit for individuals and the council in improving the numeracy skills of existing staff.'

One of the biggest benefits of this work has been the chance for teams to work together, pool resources, and develop a coherent plan.'

In the current economic climate, improving the skills of individuals is expected to contribute to cost savings across all departments. Also, the Board is expecting many more requests for numeracy learning opportunities to enhance employability skills of entry-level employees, particularly during a time of public sector funding reductions and organisational transformation.

Shaped to fit

The **Isle of Wight Council** currently employs approximately 3,500 people. It is committed to staff training and has achieved both the Go Award and signed the Skills Pledge.

The Council is in the process of carrying out a full skills audit to identify staff that would benefit from additional training. To date, the audit has revealed that staff at Level 1 are experiencing problems with basic maths, including fractions, percentages, ratios and statistics.

To assist people in increasing their skill levels, awareness-raising workshops were held for staff at various council venues, supported by Unison Learning Reps and the Isle of Wight College. This identified 68 staff that would benefit from support and they were signposted to the local FE college. Unfortunately, none of them took up the offer of Skills for Life classes, so in response, the Council's Adult, Community and Family Learning Service contacted them to arrange bespoke programmes in the workplace through a Train to Gain contract, which were a great success.



During the skills audit, the council's Leisure Service approached the team for assistance. Through the personal development review process they identified staff without Level 2 qualifications and hoped to organise additional training. The Skills for Life team arranged talks and presentations at the leisure centres and began teaching sessions, taking into account shift working patterns.

To celebrate the achievements of those taking part in the training, an event was held in the Council Chamber and the Council's Chief Executive presented the first training certificates to staff. During the event, the Council's commitment to the Skills Pledge was refreshed.

The success of Skills for Life at the Isle of Wight Council was largely down to the commitment of heads of service who promoted the training opportunities to their staff and word of mouth among staff who had completed training programmes.

The scheme was widely publicised throughout the Council with campaign posters in every office and business cards promoting training opportunities distributed around schools, leisure centres and health centres.

BUSINESS BENEFITS

- Improved interest and productivity in work section.
- Improved motivation for use of mathematics/numeracy in workplace.
- Improved job prospects – several promotions and all redeployed.
- Improved communication skills through increased self-esteem.
- Greater interest in further study and upgrading qualifications.

INDIVIDUAL BENEFITS

- Staff who were facing redundancy and completing numeracy qualifications have been redeployed within the Council or have new jobs elsewhere.
- All learners with numeracy qualification have benefited from gain in self-esteem and greater self-confidence.
- Learning assistants have greater ability to help pupils in schools, using improved mathematical skills.
- New and improved techniques for financial skills when running a team.

Useful websites

Learndirect can offer initial and diagnostic assessments and online courses that can be studied either at home or in a local centre.

Web: www.learndirect.co.uk

You can call free on 0800 101 901 from 7am to 11pm, seven days a week.

Local Governance Improvement and Development (LGID) supports improvement and innovation in local government. It works with local authorities and their partners to develop and share good practice. It does this through networks, online resources, and support from councillor and officer peers.

Web: www.idea.gov.uk

Maths4Us is a joint initiative between unionlearn, NIACE and the National Centre for Excellence in the Teaching of Mathematics (NCETM) to encourage people to tackle numeracy, take up numeracy learning and have fun with maths.

Web: <http://maths4us.org>

Move On can help with brushing up literacy and numeracy skills. It also provides practice tests.

Web: www.move-on.org.uk

The National Centre for Excellence in Teaching Mathematics (NCETM) supports and promotes professional development in the teaching of maths, across schools, colleges and other providers.

Web: www.ncetm.org.uk

NIACE organises and promotes Adult Learners' Week and has a range of publications and conferences.

Web: www.niace.org.uk

Unionlearn learning and careers advice service provides free information and personalised careers advice and guidance for union members.

Advice line on 08000 929190 (8am to 10pm).

Web: www.unionlearn.org.uk/uladvice