

Participant pack

Does it add up? Employers: effective approaches for maths engagement

Module 4

Handouts

- HO 1: Numeracy levels
- HO 2: Reflective log
- HO 3: Resourcing the engagement approach
- HO 4: Job description for administrative assistant
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- HO 6: Budgeting for Life and Work short course
- HO 7: Planning the approach

PowerPoint slide notes

HO 1: Numeracy levels

The descriptions of skills and examples in this table are from *Adult numeracy– a review of research and related literature*, National Research and Development Centre for Adult Literacy and Numeracy, 2010
www.nrdc.org.uk/uploads/documents/doc_2802.pdf.

Functional maths has similar levels but with different skills and examples (e.g. more applied). Both adult numeracy and functional maths are based on the adult numeracy curriculum.

Level	Skills	Example
Entry 1	Understands information given by numbers and symbols in simple graphical, numerical and written material.	Recognising and selecting coins, or ordering and comparing numbers up to 10.
Entry 2	Understands information given by numbers, symbols, simple diagrams and charts in graphical, numerical and written material.	Calculating costs and change, or adding and subtracting two-digit whole numbers.
Entry 3	Understands information given by numbers, symbols, diagrams and charts for different purposes and in different ways in graphical, numerical and written material.	Dividing two digits by one digit and interpreting remainders, or comparing weights using standard units.
Level 1	Understands straightforward mathematical information used for different purposes and can independently select relevant information from given graphical, numerical and written material.	Doing simple percentages, or converting units of measure.
Level 2	Understands mathematical information used for different purposes and can independently select and compare relevant information from a variety of graphical, numerical and written material.	Calculating ratios and proportions, or determining median, mean and mode.

HO 2: Reflective log

This log is a working document to record your thoughts, ideas and actions as you go through the session.

Reflections and observations:

Personal action points

Actions for the organisation

HO 3: Resourcing the engagement approach

Job role (ULR, L and D Officer etc):			
Resource(s)	Target audience (who is it for?)	Context/opportunity? (When would you use it?)	Adaptations for context and audience?

HO 4: Job description for Administrative Assistant

Northern Council

Job Outline

Post Title:	Administration Assistant		
Department:	Children Adults & Family Service		
Section:	Social Work & Safeguarding Service		
Reports to:	Admin Officer		
Terms & Conditions:	18.5 hours: Tues 10.00a.m. – 2.30 p.m. Wed 10.00 a.m. – 2.30 p.m. Thurs 9.30 a.m. – 2.30 p.m. Fri 10.00 a.m. – 2.30 p.m.		
Post No:	1428	Grade:	C
Car User Status:	Casual		

Key purpose(s) of this job:

To deliver administrative and office services for the North Locality Social Work Teams. This will include reception duties, minute taking, as well as administrative and clerical office work.

Main Responsibilities and Key Performance Indicators	
1	To carry out reception and public counter duties, including face-to-face and telephone contact with clients. The provision of customer service to high standards.
2	To ensure accurate and complete records are maintained, including data entry, checking for accuracy and flagging of potential errors.
3	Represent the service to provide basic information and advice to internal and external clients. This will include interrogation of systems to provide information; filing; the locating of documents and files; with complex issues referred appropriately.
4	Creating and formatting documents, and the use of Microsoft office packages
5	Taking minutes at meetings, and the provision of timely and accurate records of meetings with agreed actions.
6	The protection of confidentiality, ensuring all information and data for service users is maintained to required standards
7	Assistance with financial transactions for the teams, including the accurate issuing and recording of petty cash.
8	The checking of stock levels and supplies and the ordering of materials and equipment.
9	The organisation of your own workload to complete given tasks on time, meeting required deadlines.
10	Contributing and sharing ideas as a member of the team, to take part in ensuring effective service delivery.

Please note: The post-holder will be expected to work in the interest of the organisation. This may include undertaking other duties provided that these are appropriate to the employee's background, skills and abilities. Where this occurs there will be consultation with the employee. It is the responsibility of the post holder to comply with Health and Safety and Equal Opportunities at all times.

Equality of opportunity

We do our utmost to ensure that there is no unjustified discrimination in the recruitment, retention, training and development of staff on the basis of their age, sexuality, religion or belief, race, gender or disabilities.

HO 5: Finance for non-financial managers

(Email from Learning and Development Officer to colleague)

Hi Angela

I had a word with Roger today about the 'Finance for non-financial managers' training we discussed. These are the skills and tasks which most of the people we have in mind for the training need to use regularly, and which we know people sometimes struggle with:

- Service unit / department budgets
- Time sheets
- Annual leave / Bank holidays / Time owing calculations
- Mileage / expenses
- Balance scorecard linked measures; percentages / statistics / days per employee calculations / part-time working hours
- On-costs / salaries / pension calculations, etc
- Rotas / shifts / timetabling

Do you think that you could talk to Mohammed at the college about whether they could cater for this group?

Many thanks

Rickie

HO 6: Budgeting for Life and Work short course

The ULR team at the local council has been surveying employees to see what sort of learning programmes would interest them. The council has a strategy to engage more staff into numeracy / maths training, as it recognises the scale of need, but has been promoting generic 'Improve your numeracy' courses with little uptake to date.

The surveys have revealed that people would be interested in courses that would help them to understand and take control of their finances better. The most frequently occurring themes include:

- Understanding your mortgage payments, and the long-term real cost
- Understanding the difference between repayment and interest-only mortgages
- Different credit options and their comparative costs
- Household budgeting, including different gas, electricity and phone tariffs
- Understanding pensions, both company and state

The ULR team are tasked to liaise with their training provider to create a numeracy / maths package, including an approach to engagement as well as training, which will successfully attract employees into numeracy / maths skills development opportunities.

HO 7: Planning the approach

In pairs (with your learning provider), choose a target audience within your organisation whom you would like to engage in maths learning.

- Decide on an engagement approach to get learners 'hooked'.
- Think of the skills or topics they would like to include in the programme of learning.
- Sketch out the delivery model(s) which they think would be appropriate, and attract most people into learning.


Engagement approach (include any resources or materials you have seen which you may use or adapt.	
Skills or topics	
Delivery model	

PowerPoint slide notes



Support for English, maths and ESOL


Does it add up?
Employers: effective approaches for maths engagement



Welcome!

Introduce yourself to one or two people on your table who you do not already know.

Find a set of cards and match the percentages with the statements.



Aim

To explore effective approaches to maths engagement in the workplace

Outcomes



By the end of the session participants will have:

- Explored maths-specific barriers to engagement in the workplace
- Evaluated effective approaches to maths engagement
- Found existing sources of maths engagement material and considered how these can be adapted to maximise relevance and engagement potential
- Worked in partnership with your learning provider to identify a range of engagement approaches

What is numeracy?



- Numeracy is a proficiency which is developed mainly in mathematics, but also in other subjects.
- It is more than the ability to do basic arithmetic.
- It involves developing confidence and competence with numbers and measures.
- It requires an understanding of the number system, a repertoire of mathematical techniques, and an inclination and ability to solve quantitative and spatial problems in a range of contexts.

(CIES, 2001)

What is numeracy?



Being numerate means to be competent, confident and comfortable with one's judgements on whether to use mathematics in a particular situation, and if so, what mathematics to use, how to do it, what degree of accuracy is appropriate, what the answer means in relation to the context, whether / how to communicate the answer appropriately and what (if any) action to take in the light of the analysis.

Numeracy Counts, NIACE, 2011

Barriers: individual



- Lack of perception of need (poor self-assessment)
- Lack of confidence and 'maths phobia'
- Previous negative experiences at school
- Easier to conceal a numeracy gap than a literacy gap
- Cultural acceptance ('I don't do maths')

Barriers: Middle and first line managers



- Staff release time involved
- Unawareness of scale of need
- Inflexibility and length of provision
- Managers not linking issues in performance to numeracy skills of staff
- Lack of confidence or training to support positive promotion of numeracy training within performance management procedures, e.g. appraisals / PDRs

Barriers: organisational



- No clear strategy for maths skills development
- Maths not embedded into HR and performance management policies and procedures (induction, appraisals, redeployment)
- Maths skills assessments not embedded into staff development offer, including corporate and vocational training and professional qualifications
- Lack of awareness of the business case for investing in the maths skills of staff
- No impact measures identified for improving the maths skills of the workforce
- Where there is a strategy for embedding English, maths and ESOL across the authority, no independent data is collected for maths engagement or uptake onto training

Engagement approaches carousel



Spend 15 minutes at each table reviewing and discussing the resources / approaches.

Select one or two (where appropriate) and make a note of:

- 1.the target audience for whom these engagement resources would be appropriate
- 2.the context or opportunity (e.g. induction, Learning at Work Day)
- 3.any adaptations or contextualisation that would be required

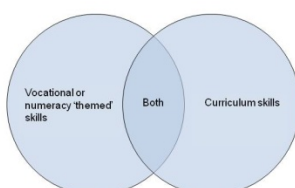
Challenges for maths provision



- Maths training that doesn't reflect workplace needs and context
- Breadth of curriculum coverage for qualification compared to role-specific skills
- Inadequate assessment for numeracy skills within vocational programmes*
- Lack of embedding of numeracy skills development within vocational programmes*

*(Ofsted, 2011)

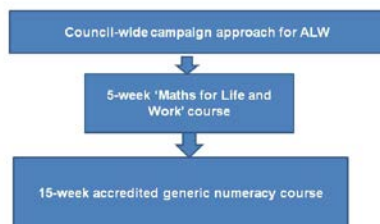
Tailoring the provision: the challenge



Burnley Council's numeracy engagement model:



Cheshire East's approach



'Horses for courses'



In groups of 3 or 4:

- Choose one of the numeracy contexts
- Using the curriculum cards, identify (roughly!) the maths skills that need to be developed for the context or theme
- Taking into account how many of the skills across the curriculum are NOT directly relevant to your context, design an engagement and delivery model to 'fit' the range of needs of your potential target audience