



Support for English, maths and ESOL

Module 4: 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

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.

(DfES, 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

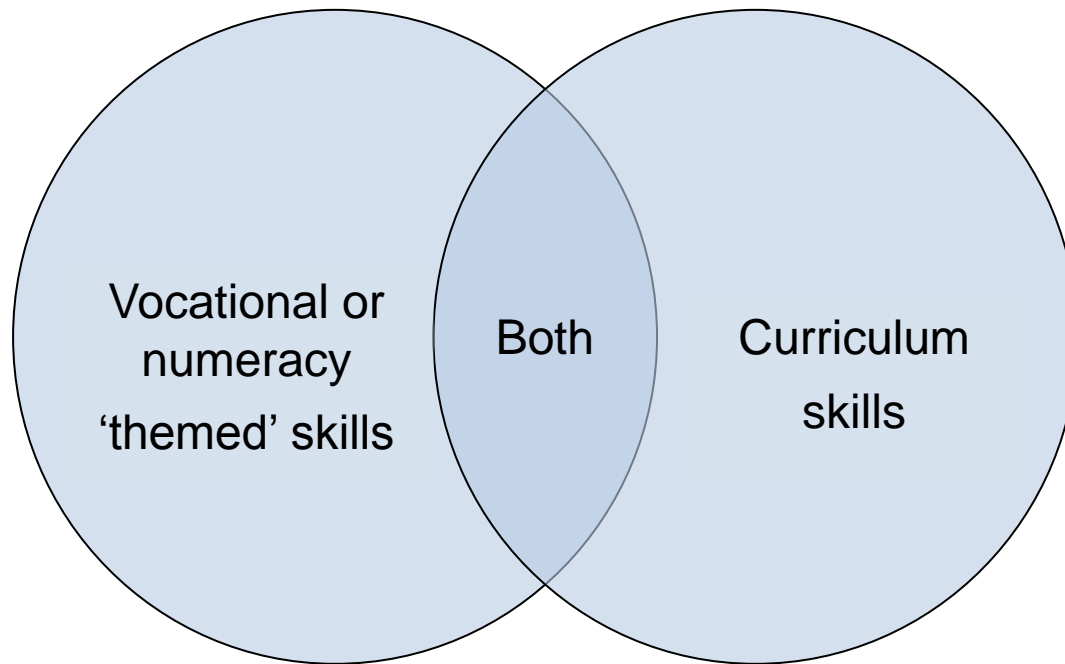
Challenges for maths provision



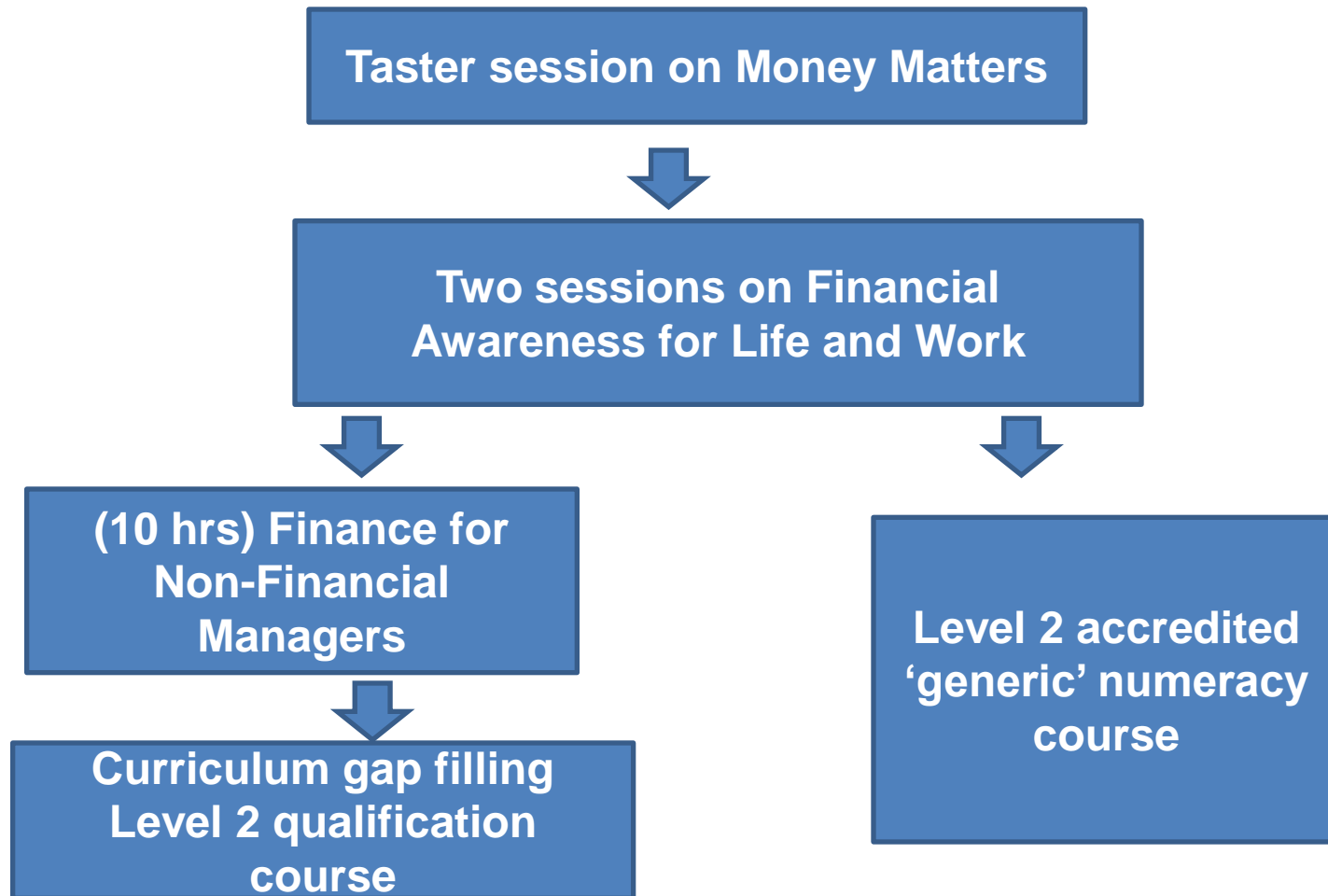
- Maths training that doesn't reflect workplace needs and context
- Breadth of curriculum coverage for qualification compared to role-specific skills
- Inadequate assessment for numeracy skills within vocational programmes*
- Lack of embedding of numeracy skills development within vocational programmes*

*(Ofsted, 2011)

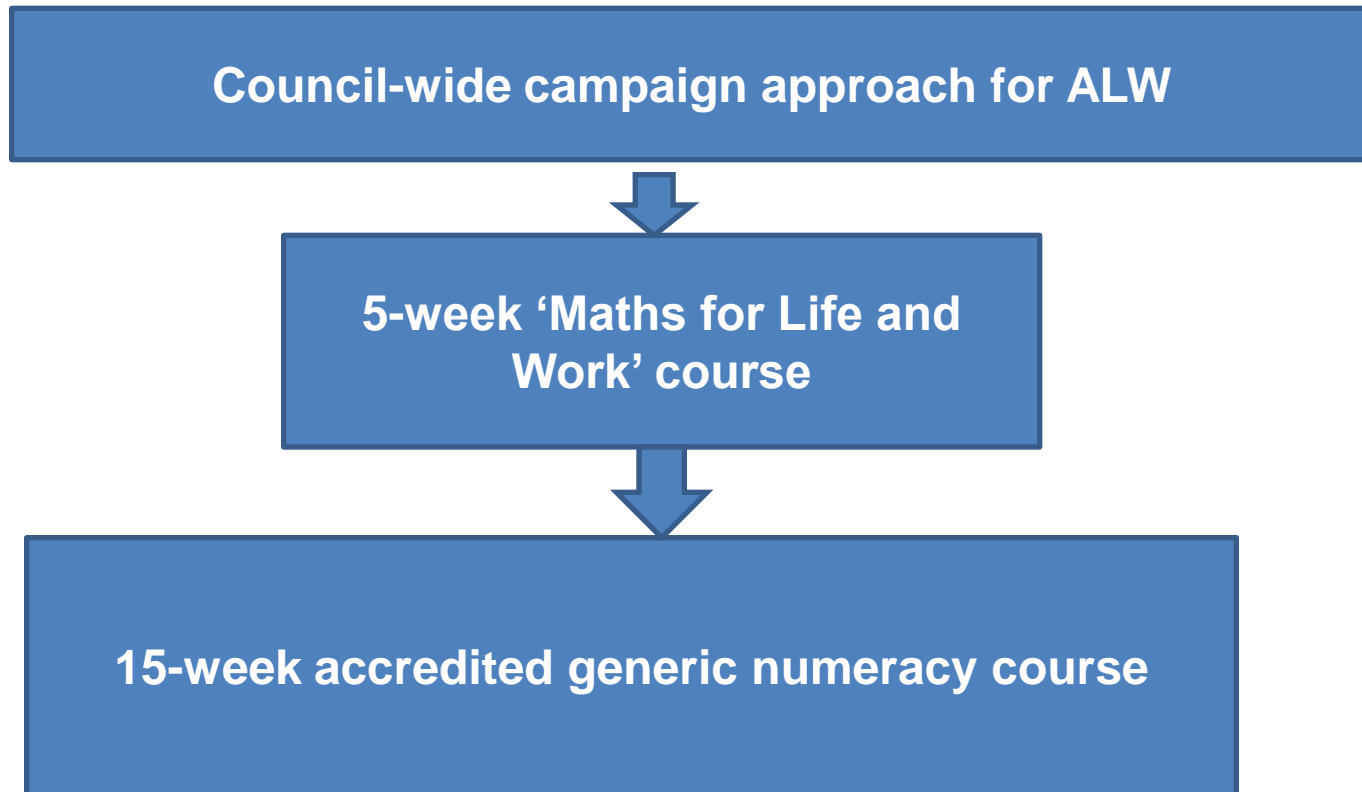
Tailoring the provision: the challenge



Burnley Council's numeracy / maths 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