



[nationalnumeracy.org.uk](http://nationalnumeracy.org.uk)

# Numeracy Forum

19 October 2015

@Nat\_Numeracy #nnforum

# Money management and everyday maths

@Nat\_Numeracy #nnforum

# David Haigh Money Advice Service

@YourMoneyAdvice #nnforum

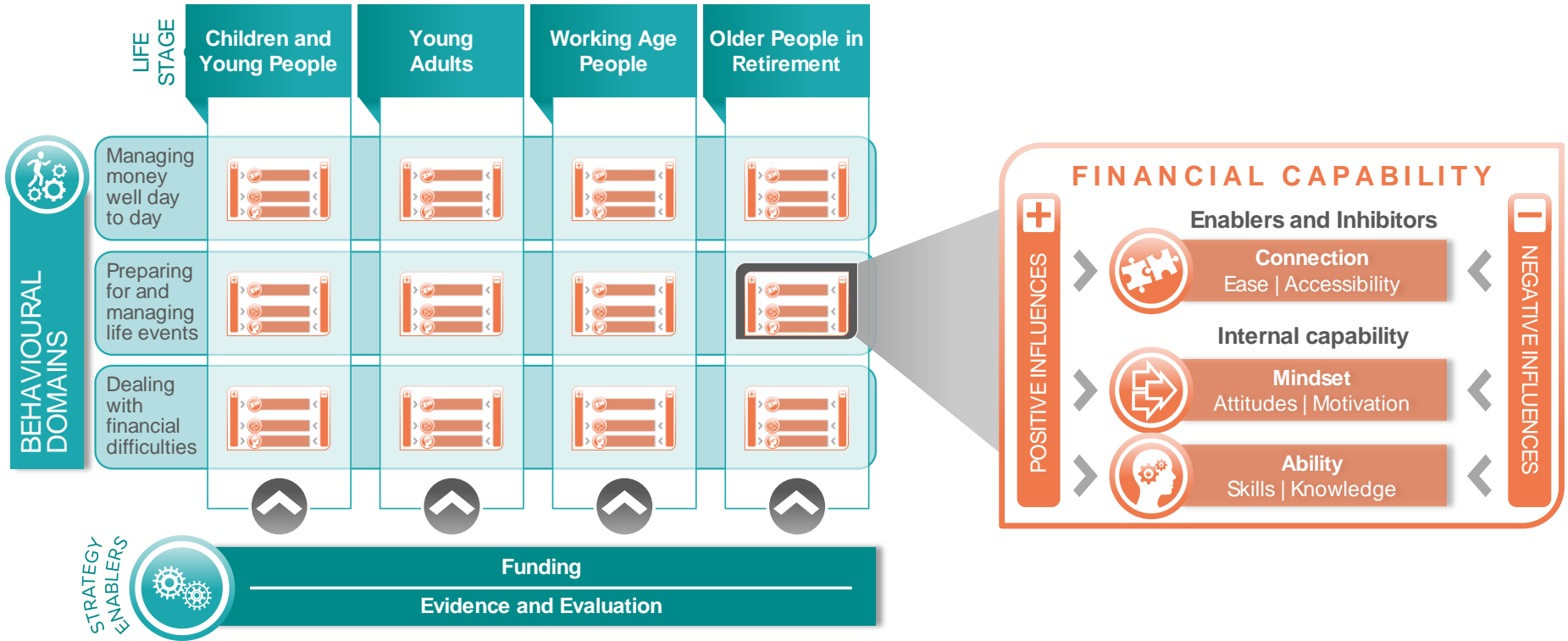


# Numeracy & Financial Capability

David Haigh  
Money Advice Service



# The Strategy Framework



# Financial Capability Survey

## Ability

### Financial knowledge and understanding

- Understanding financial products and concepts
- Understanding money management
- Understanding the role of money in society

### Basic skills

- Applied numeracy
- Literacy
- Problem solving

## Mindset

### Financial attitudes and motivations

- Attitudes to money
- Aspirations and goals

### General attitudes and motivations

- Self confidence
- Perseverance
- Self control



# Quiz question from survey

- Suppose you put £100 into a savings account with a guaranteed interest rate of 2% per year.
- You don't make any further payments into this account and you don't withdraw any money.
- How much would be in the account at the end of the first year, once the interest payment is made?



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Incorrect answer/DK Correct answer

All 18+



Young adults



Working age



Retirement age





# Who gets it wrong?

- Everyone...
- ... but some groups over represented...
- No major difference by age
- Much more likely to be low income
- Social grades C2, D, E
- Bit less likely to be working full-time
- Much more likely to be social renters
- Some link with qualification
- BUT a quarter of people who got it wrong have a degree



# Their attitude to money

- A bit less confident in managing money
- Less likely to feel their approach to keeping track works
- Think it's less important to keep track

Generally seem to be a bit less engaged with money?



# Their financial behaviours

- They generally do check their balance...
- but less likely to actually keep track of income and expenditure
- Less use of digital to do online banking
- A bit less likely to discuss money – particularly with partner, friends, parents
- More likely to find things more of a struggle (but likely to be due to income?)



# Summary

- Numeracy & attitudes dotted throughout Financial Capability Strategy Framework
- Too many people struggle with basic numeracy
  - Those who do are less engaged with money
  - And less likely to exhibit good financial behaviours
  - But... Causation? Impact of income?



# What next?

- ▶ Survey allows us to do deeper dives on link between numeracy and financial literacy
- ▶ Any areas of specific interest?
- ▶ OECD publication of international comparison of financial capability, with more questions on numeracy, out later in 2016
- ▶ Partnering with Education Endowment Foundation to prove what works in improving financial education



# Bas Diablos Citizens Advice

@CitizensAdvice #nnforum

# Financial capability and numeracy

citizens  
advice

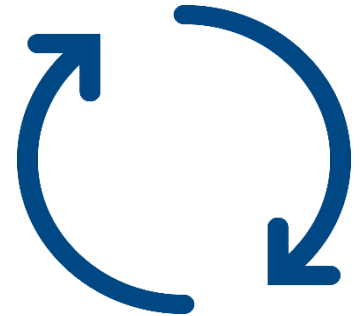
**Bas Diablos**  
**19<sup>th</sup> October 2015**

# What is financial capability?

- Not just budgeting.



- Or even ....





Browse education resources

Financial capability resources

Resource topics >

Resource toolkits

Resource support

Older resources

Copyright and terms and conditions of use

▼ **Banking**

▼ **Budgeting**

▼ **Credit**

▼ **Debt**

▼ **Energy and water**

▼ **Insurance**

▼ **Jobs and employment**

▼ **Money online**

▼ **Saving**

▼ **Welfare reform**

A new suite of **222** new financial capability resources launched on the Citizens Advice website last month. They include dozens of session packs, award-winning toolkits and downloadable presentations.

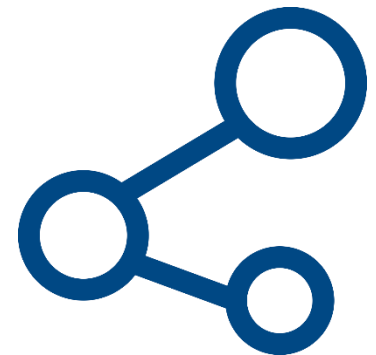
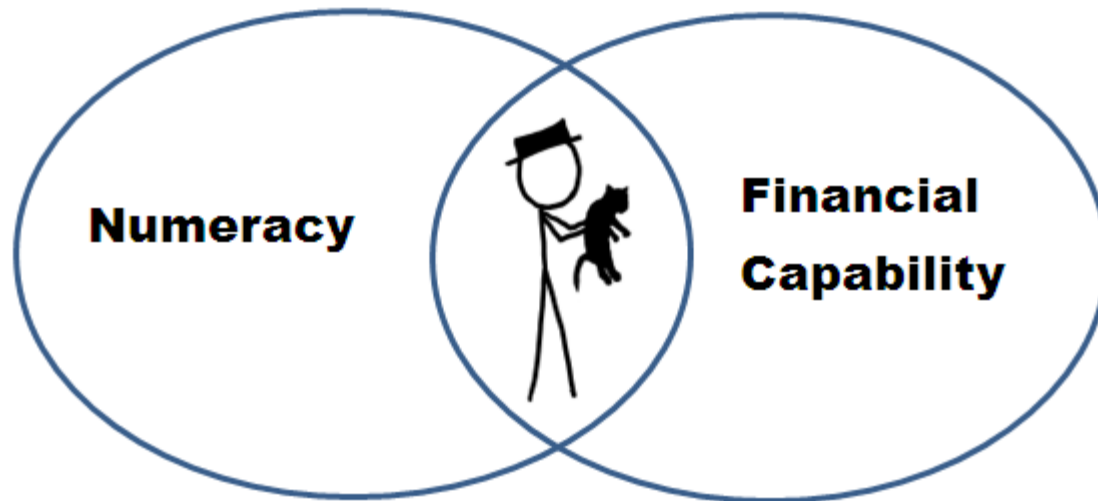
## But those are just resources

- Financial capability is not just knowledge
- It's the motivation and the attitude to take control of your own finances.

And so teaching financial capability to clients is a lot like teaching any other key skills – like, for example, numeracy.



## A narrow view of numeracy and financial capability



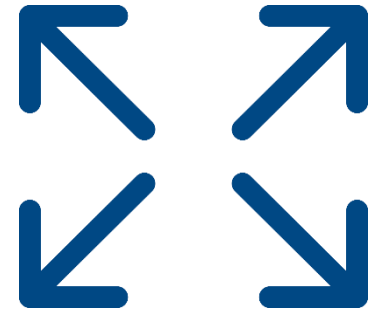
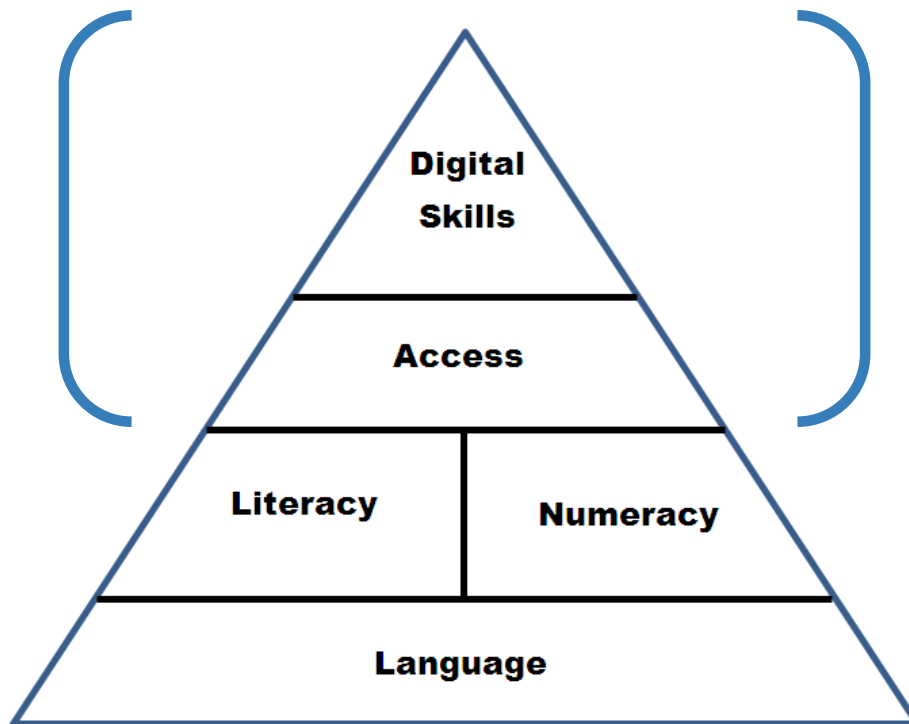
## So how are they linked?

Although there is no argument that financial capability and numeracy are linked, it's not fair to say it is a directly causal, or even correlative relationship.

Having poor numeracy does not always mean poor financial capability, or vice versa



## A broader view of numeracy and financial capability



## So what are Citizens Advice doing?

- For the first time, the new resources are split into resources that require numeracy skills, and those that do not.
- Promotion of online numeracy tools, like the National Numeracy Challenge.
- Developing a robust impact and evaluation model to explore the relationship between numeracy and financial capability.

The organisation's financial capability strategy – up to 2020 – is yet to be finalised, but currently includes acknowledgment of numeracy as a key strand, amongst others.

**Any questions?**



**citizens  
advice**



# The Financial Skills for Life team

## **Christy McAleese**

Team manager

03000 231 209

## **David Mahon**

Forums / Training & resources

03000 231 582

## **Hannah Luck**

Forums / Communication &  
information

03000 231 581

## **Also...**

### **Basam Diablos**

Financial capability development  
consultant



**Presented by: Bas Diablos**

**Date: 19<sup>th</sup> October 2015**

# Wendy Alcock Money Saving Expert

@MoneySavingExp #nnforum

**MoneySavingExpert.com**

# Deal or no deal

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**When do low numeracy skills stop someone getting a good deal?**

# “Do the maths”

## **30+ Cheap Mobile Tips**

Find the best deal and cut costs

## **Cheap Hay Fever Tablets**

Quickly slash the cost of hay fever remedies

## **Should I overpay my mortgage?**

Should you use savings to overpay?

## **Career Development Loans**

Interest-free loans while you study

## **When promos go wrong**

Most ridiculous offers spotted by MoneySavers

## **Cheapest SIPP**

Build a low cost DIY pension

# Do the maths add up?



## Should I repay my student loan?

Better to save or clear debt, inc calc

The student loan rate is now 2.5% for 100,000s. This is a full guide on how the loans system...



## Cheap Gas & Electricity

Compare now to save £100s

There's an energy price war on but only for switchers. Many people can save £100s and...



## Beware Over-50s Life Insurance

Many waste a fortune on Axa & others, we compare best buys

You wouldn't buy a lottery ticket if it cost more than the jackpot, but the millions of people...



## Reclaim Packaged Accounts

Mis-sold? You could get back £100s

If you've pay a monthly fee for your bank account in return for 'free' insurance - you may be...

## Over 50 Life Insurance

The Guaranteed Over 50 Plan is the UK's No 1 choice for over 50 life insurance<sup>^</sup>. It's a simple and affordable way to leave a fixed cash sum on death for your loved ones. All we ask is that you keep paying your premiums for life, or your Plan will end and you'll get nothing back.

Premiums are from as little as £4 a month - that's the lowest premium available anywhere in the UK for life cover plans of this type<sup>†</sup>. It's simple to [apply](#) and you can get an over 50 [life insurance quote](#) today in less than 60 seconds. What's more, to celebrate reaching over 1 million Plans<sup>‡</sup> sold, we're giving you the chance to win a Mercedes A180SE or £20,000 in cash if you take out a Guaranteed Over 50 Plan by 31st December 2015<sup>\*</sup>. Terms and conditions apply.



**“Peace of mind  
from £4 a  
month”**

## Over 50s life insurance – deal or no deal?

- Your family get a fixed lump sum when you die
- You don't need a medical; anyone can get a plan
- The cost is low; they start from £4 per month
  
- You're locked in until you die (some cap at age 90)
- Miss one payment and you get nothing
- It doesn't take account of inflation
  
- You get a free smartphone, TV or tablet



# Should Bob have bought the plan?

Bob is a 65-year-old in decent health who loves dancing and spending time with his family. He decides to put £5 a month in an over-50s plan which promises to pay out a lump sum of £725 when he dies.

**Now for the maths...**

Payout divided Monthly divided Months in a year = 12.08  
£725 by cost by 12 years

£5

If Bob lives past 77 he's making a loss. Is he likely to live that long?



# Packaged bank account – deal or no deal?

These accounts are where you pay a monthly fee in return for benefits, most often bundled insurance policies.

They are a great way to get mobile phone, travel, breakdown and other insurance cheaply IF YOU'LL USE IT.

If not, they can be a massive waste of money.



## UK & European Breakdown and Recovery Assistance

Cover for you in any private car, including 48 hour hire car benefit.\*



## Worldwide family mobile phone insurance

Cover includes handset repair or replacement.\*



## Worldwide family travel insurance

Including winter sports, golf and business.\*



[Full policy details \(1MB\)](#)

# Should the Foster family pay for a packaged account?

Fred and Fran and their two children Fin and Fay have a Ford Fiesta, four mobile phones and take a fortnight's family holiday each year to France. They currently pay £88 for annual European travel insurance, £66 for a year's breakdown cover and £11 a month to insure their phones. They're looking at buying a bundled bank account that costs £18 a month.



## Now for the maths...

Bank account		Travel + Breakdown + mobiles	= £70
$£18 \times 12 = £216$	minus	$£88 + £66 + (£11 * 12) = £286$	GAIN

## It's about confidence as well as numbers

I've never had a natural ability when it comes to maths. But it's only now, as an adult, I realise a lot of my challenges come from a lack of confidence and my own self-belief, rather than my actual ability. That maths self-doubt still riddles me in adulthood, but it's something I've had to face head on to succeed in my job. Luckily now I have the confidence to ask the right people the right questions to learn the methodology and put it into practice.

**MoneySavingExpert.com member of staff**

# We're never too old to learn

## Want to improve your maths and English skills?

If you've ever wanted to improve your maths and English skills many colleges around the country offer free courses to help you from basic literacy and numeracy up to GCSE level. Check on the [National Careers Service](#) website or call 0800 100 900 for classes in your area.

 $2 + 2 = 4$

To learn at home try the online interactive lessons from [The Excellence Gateway](#) or play the range of maths and English games on the [BBC SkillsWise](#) site.

You can also take the free [National Numeracy Challenge](#) to see how you can improve your everyday maths skills in bite-sized steps.

**Who can apply?** Anyone

**What's the maximum award?** n/a

**What does it cover?** Free daytime and evening classes in maths and English (reading, writing)

# Steve Stillwell Young Enterprise

@youngenterprise #nnforum

the business of life

“...but is it good mathematics  
and good financial  
education?”

London Lead teachers in financial education  
funded through the London Schools  
Excellence Fund

Steve Stillwell: Head of Education



# Young Enterprise

In September 2014 pfeg merged into Young Enterprise to create the UK's leading charity that empowers young people to harness their personal and business skills.

We work directly with young people, their teachers and parents, businesses and influencers to build a successful and sustainable future for all young people and society at large.

Offer a range of services to practitioners engaged in financial education for young people e.g. Ask pfeg, pfeg Quality Mark and pfeg website – [www.pfeg.org](http://www.pfeg.org)

Undertake a number of funded programmes e.g. Centres of Excellence.

Experience of programmes with a mathematics focus e.g. Secondary Mathematics ITT.





# London Lead Teacher in Financial Education

Funded through the London Schools Excellence Fund.

Explore whether providing financial education within mathematics can also enhance student's attainment and engagement.

Mathematics curriculum at key stages 3 and 4 specifically references the use of 'financial mathematics' and the use of finance as a context.

26 Experienced mathematics teachers - including heads of departments senior leadership teams in 26 different London secondary schools.

780 young people directly involved (working with the 26 lead teachers)

# What happened

Review of past GCSE maths papers showed that in both foundation and higher tier papers there can be in excess of 25% of paper that contain questions using a financial context.

Exploration of the Chief Examiners comments in relation to these questions reveals that in some cases the reason students are not achieving as well as they should is down to not understanding the context of question, rather than a lack of mathematical ability.

In order for the students to receive this contextualised mathematics, the Lead Teachers needed to increase their knowledge, skills and confidence in financial mathematics.

Each lead teacher provided with bespoke training and 1-2-1 support.

# Outcomes and outputs

Young people in the test group (n = 260) increased their mathematical attainment by 21.45% when answering mathematics questions using a financial context. This compares to the control group (n = 101) in which attainment was only seen to improve by 3.06% (this group was delivered the same maths but not using a financial context)

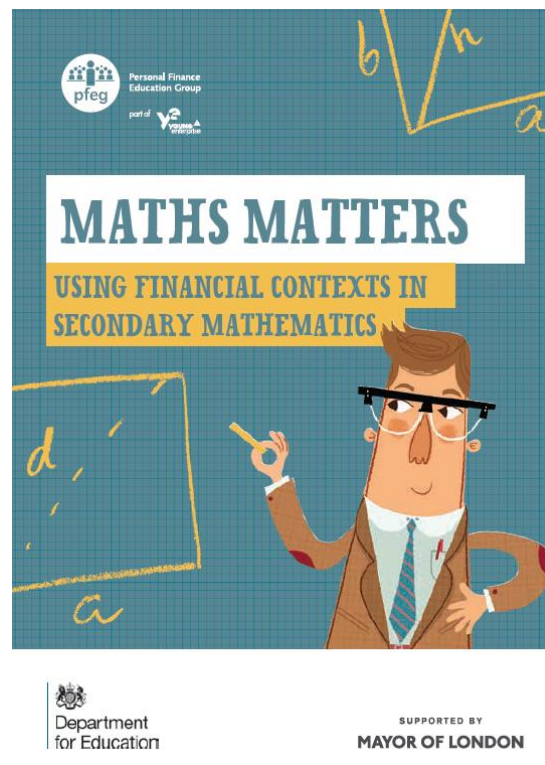
100% of lead teachers claimed that the students engagement in mathematics had increased when it was delivered using a greater financial context

All teachers showed an increase in knowledge, skills and confidence in delivering financial context mathematics from being part of the project

All teachers increased their awareness of appropriate resources to support financial context mathematics.

# Outcomes and outputs

New legacy resource [www.pfeg.org](http://www.pfeg.org)



Funding from Nationwide to develop the model within primary schools.

# Stephen Uden Nationwide Building Society

@Nationwide #nnforum

# Questions and discussion

@Nat\_Numeracy #nnforum

# Lunch

@Nat\_Numeracy #nnforum

# Action on the ground

@Nat\_Numeracy #nnforum



# Tackling the adult numeracy shortfall

@Nat\_Numeracy #nnforum

# Catherine Paulson-Ellis

## Department for Business Innovation and Skills

@bisgovuk #nnforum

# **Sue Southwood** **The Education and Training Foundation**

@SueSouthwood #nnforum



# Shaping

the Future

**Sue Southwood**  
**Programme Manager for Professional**  
**Standards and Workforce Development**

The  
**Education**  
**& Training**  
**Foundation**

# The challenge

- Nationally we need to improve **achievement** at level 2 in maths and English by age 19
- Staff need to be confident in both their **personal skills** and **teaching approaches** for maths and English
- Learners need to follow the **right path** and study for the qualification that best suits their needs and aspirations



# Supporting senior leaders and governors

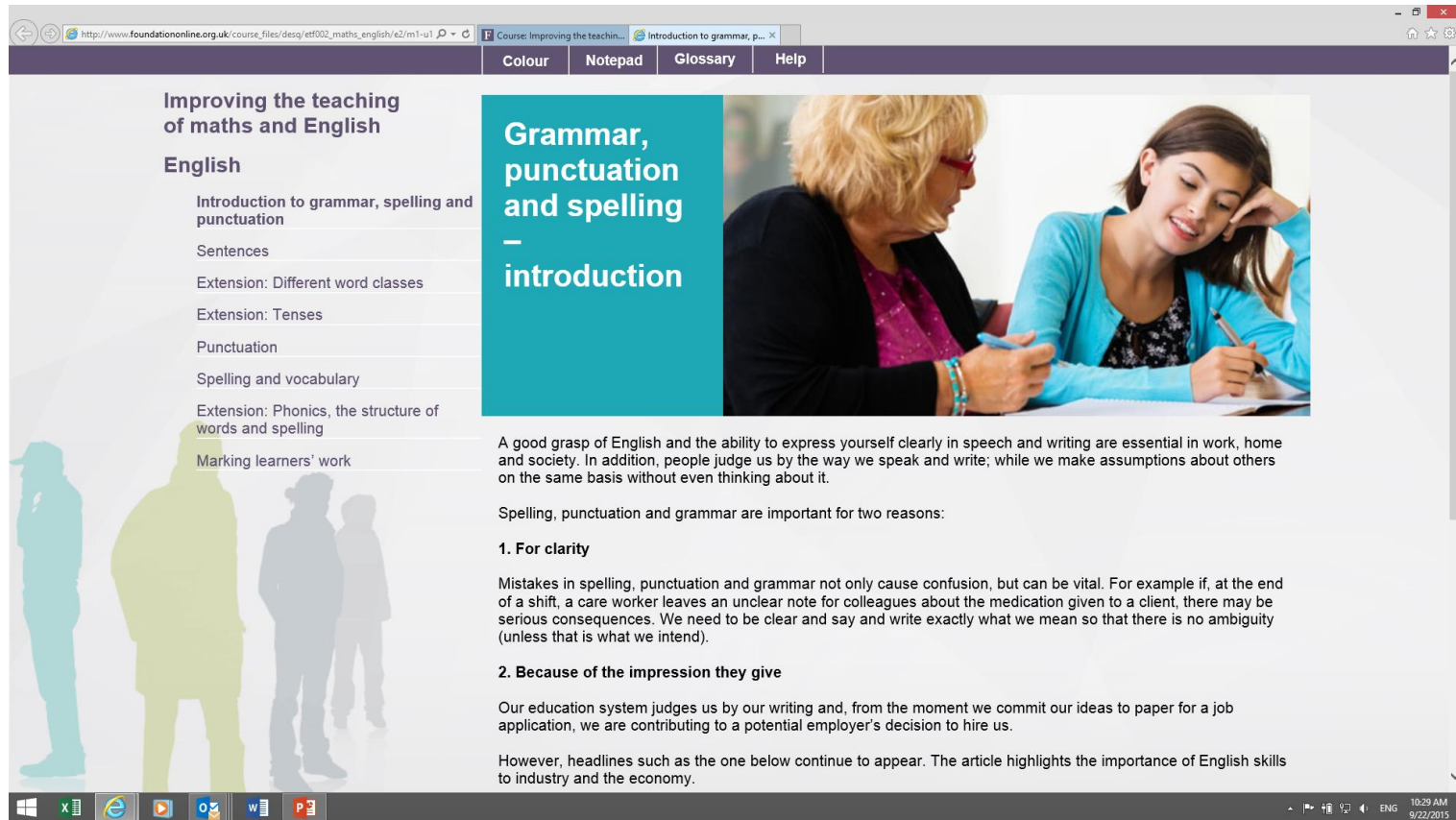
- A bespoke website to provide information, guidance and resources for senior leaders and governors
- A **Strategic Guide** including a **Health Check** and **case studies** located on the Excellence Gateway
- We are working with 38 organisations, providing specialist support



# Supporting the dual professional

- **Self-evaluation tool** to reflect on your personal skills and teaching approaches. Mapped to GCSE topics. 500 have completed for maths. English available in November
- **Online modules** to support personal skills
- **English and Maths Pipelines** – a differentiated package of support including courses and resources
- **Regional Development Leads** for advice and guidance

# Foundation Online learning




The screenshot shows a web browser window with the URL [http://www.foundationonline.org.uk/course\\_files/desktop/ef002\\_maths\\_english/e2/m1-u1](http://www.foundationonline.org.uk/course_files/desktop/ef002_maths_english/e2/m1-u1). The page title is "Course: Improving the teaching of maths and English" and the current page is "Introduction to grammar, punctuation and spelling". The navigation menu includes "Colour", "Notepad", "Glossary", and "Help".

## Improving the teaching of maths and English

### English

- Introduction to grammar, spelling and punctuation
- Sentences
- Extension: Different word classes
- Extension: Tenses
- Punctuation
- Spelling and vocabulary
- Extension: Phonics, the structure of words and spelling
- Marking learners' work

## Grammar, punctuation and spelling – introduction



A good grasp of English and the ability to express yourself clearly in speech and writing are essential in work, home and society. In addition, people judge us by the way we speak and write; while we make assumptions about others on the same basis without even thinking about it.

Spelling, punctuation and grammar are important for two reasons:

- 1. For clarity**

Mistakes in spelling, punctuation and grammar not only cause confusion, but can be vital. For example if, at the end of a shift, a care worker leaves an unclear note for colleagues about the medication given to a client, there may be serious consequences. We need to be clear and say and write exactly what we mean so that there is no ambiguity (unless that is what we intend).

- 2. Because of the impression they give**

Our education system judges us by our writing and, from the moment we commit our ideas to paper for a job application, we are contributing to a potential employer's decision to hire us.

However, headlines such as the one below continue to appear. The article highlights the importance of English skills to industry and the economy.

Windows taskbar: 10:29 AM 9/22/2015



# Practitioner Research Programmes

90 practitioners supported to date. 25 places for maths and English teachers 2005-16



*“The impact of the research has seen “us” as teachers and, more importantly, our educational institution look deeper into the intrinsic problems that have become rituals within our current practices.”*

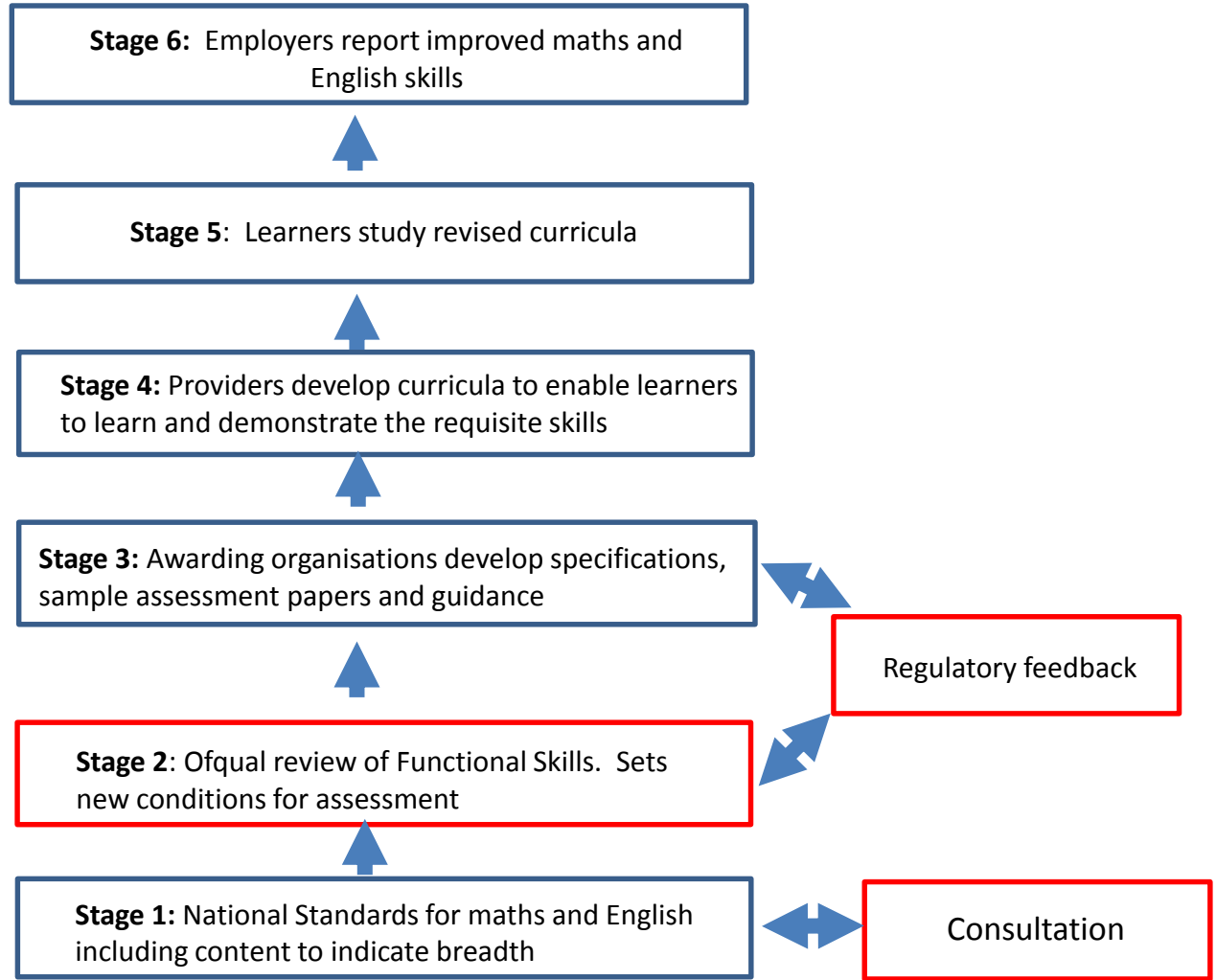
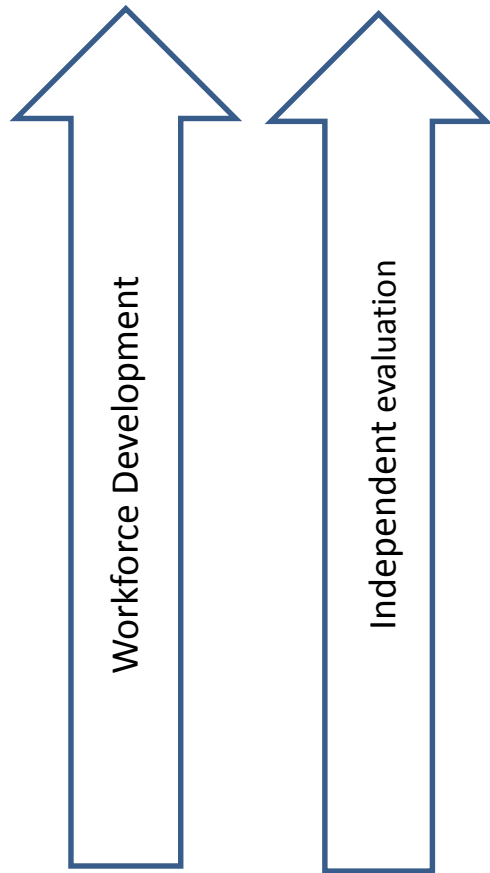
# Reforming Maths and English Functional Skills Qualifications

Open consultation Jan – April 2016

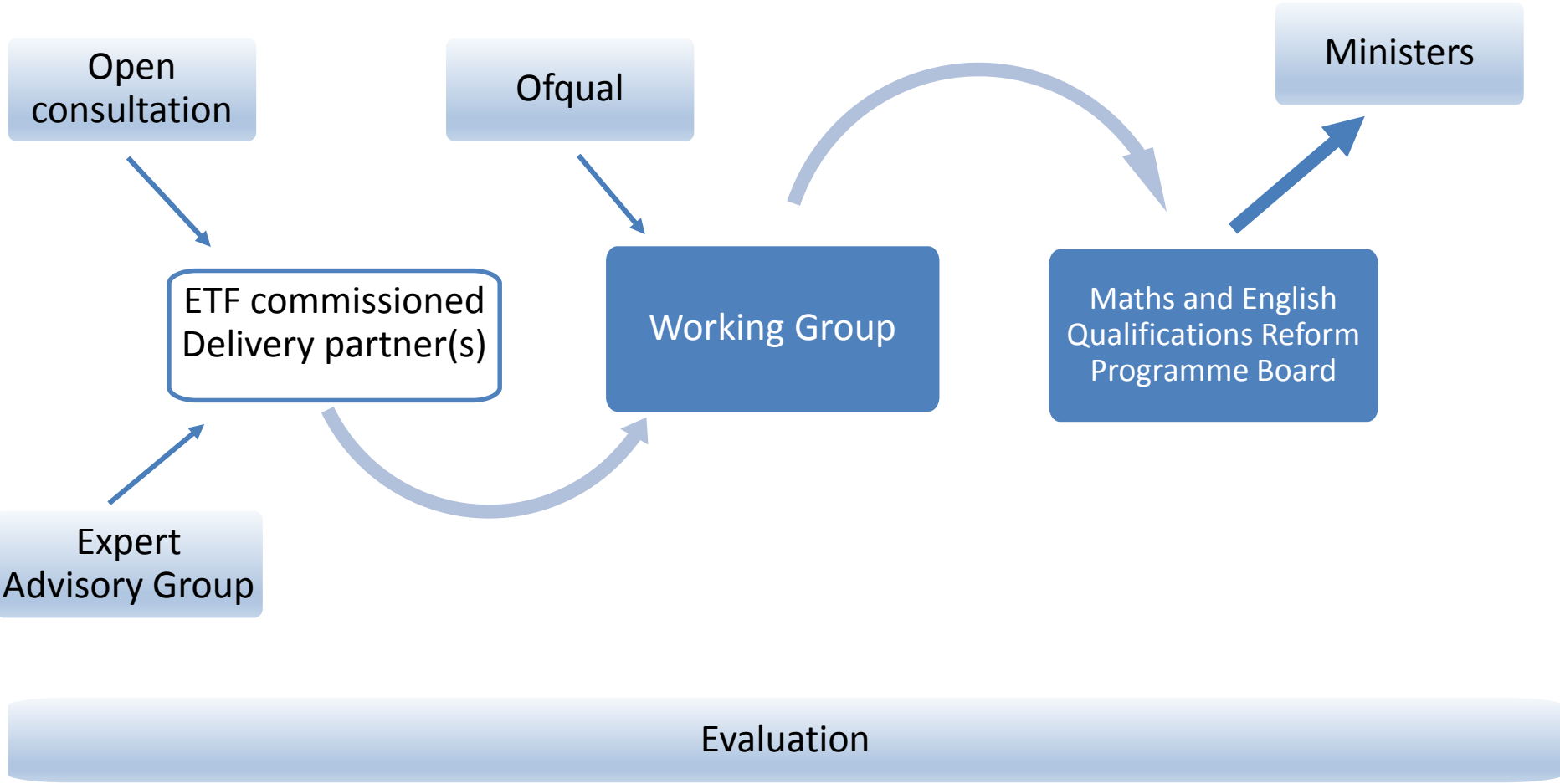
Outcomes by August 2016

- Revised set of National Adult Literacy and Numeracy Standards
- A report with policy recommendations for ministers to include:
  - Breadth of knowledge and skills required for Functional Skills to support learners in life and work
  - The number of guided learning hours needed for learners to achieve the new qualification

# Stages of reform



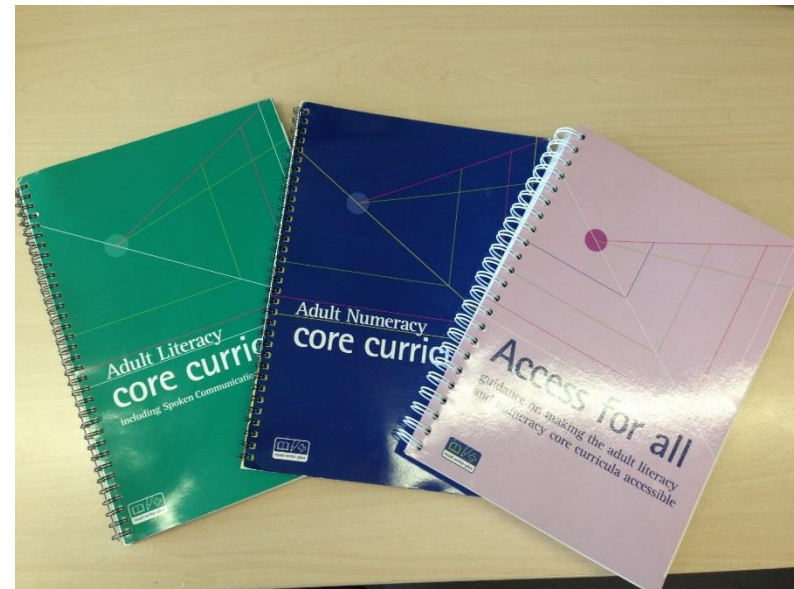
# Governance structure



# What next?

Three year proposal (to be confirmed post CSR) includes:

- Consult upon and produce new core curricula for maths and English
- Update Access for All
- CPD for existing teachers
- Update initial teacher training



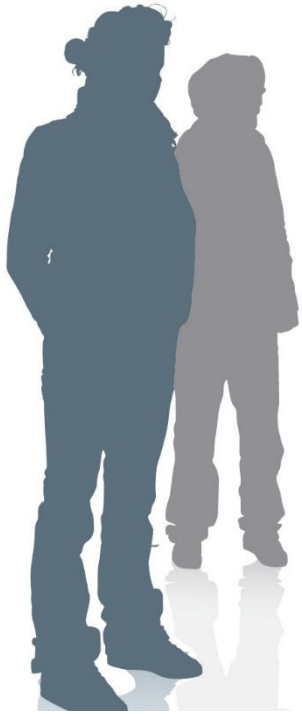
# Find out more

Foundation online learning

Excellence Gateway

FE Advice

Newsletter



The  
Education  
& Training  
Foundation



# Jonathan Wells ForSkills

@jwellsatguroo #nnforum



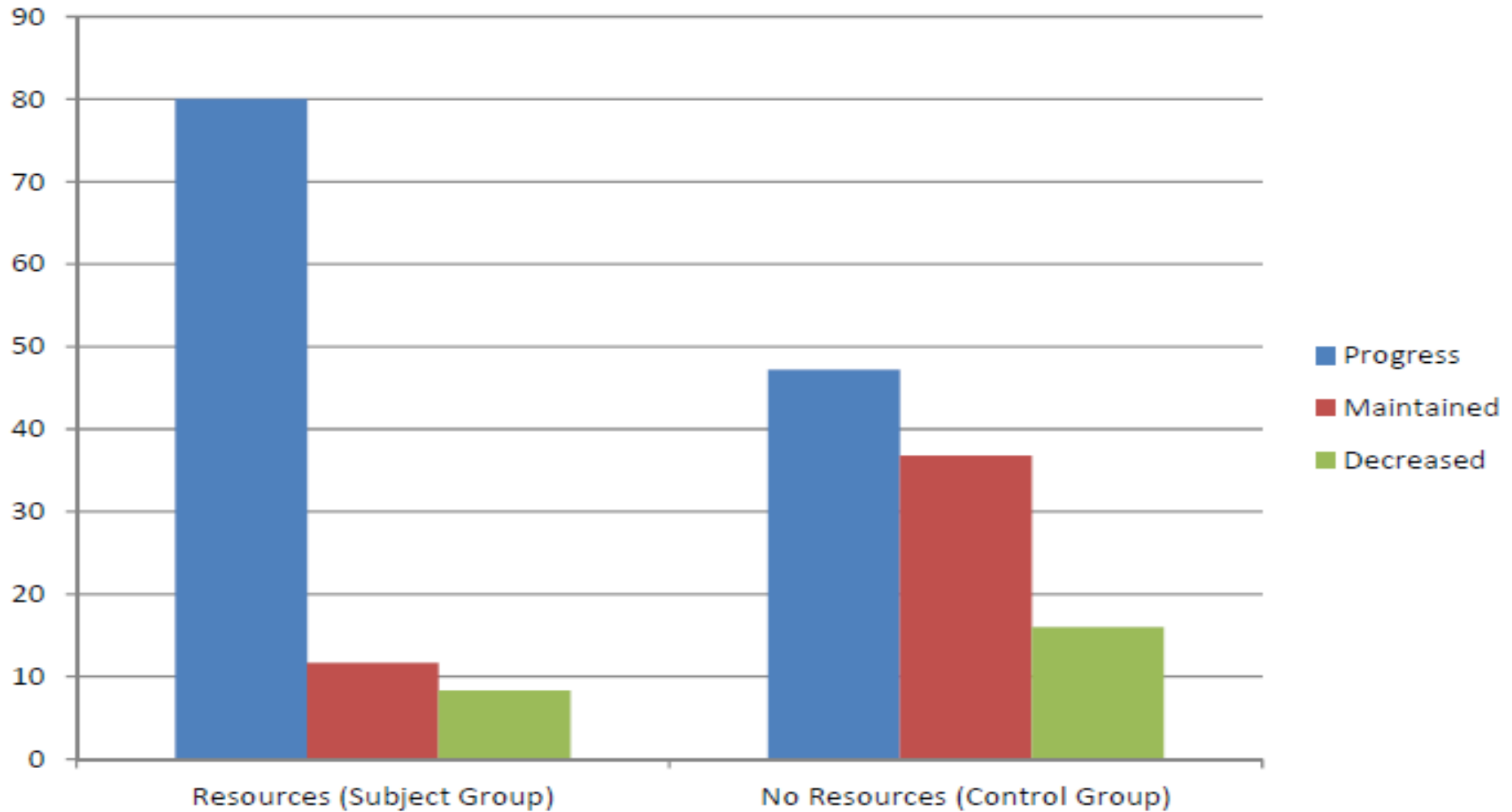




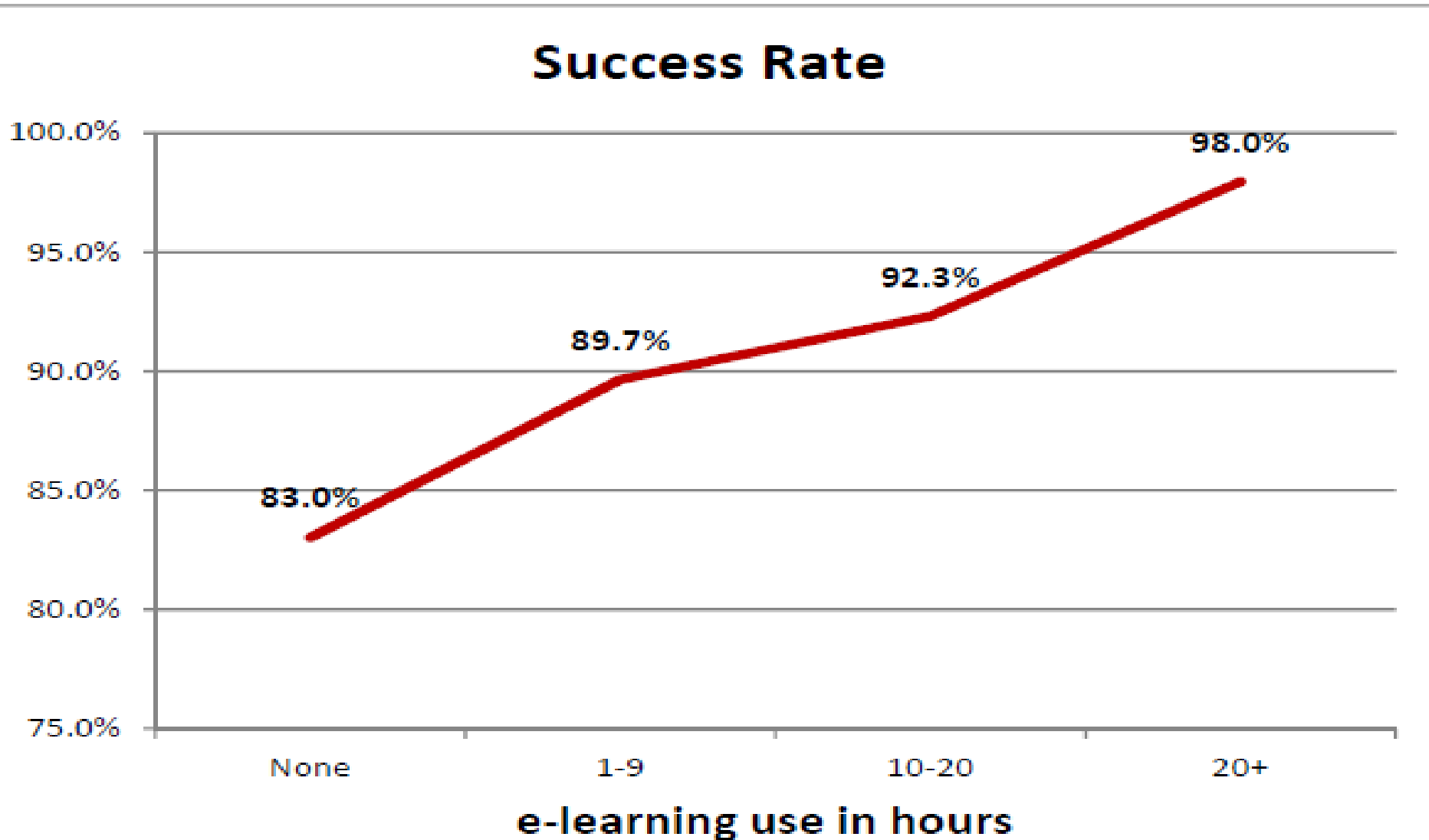


# Progression of learners

**Percentage of progress rates**



# Success of learners





[http://bit.ly/elearning\\_report](http://bit.ly/elearning_report)

[jonathan@forskills.co.uk](mailto:jonathan@forskills.co.uk)

Personalised Learning Video Resources Personalised Learning Video Resources Personalised Learning Video Resources Personalised Learning Video Resources Personalised Learning Video Resources  
Ofsted Compliant Assessment Schools Colleges Ofsted Compliant Assessment Schools Colleges Ofsted Compliant Assessment Schools Colleges Ofsted Compliant Assessment Schools Colleges Ofsted Compliant Assessment Schools Colleges  
Self-Marking Qualifications Adaptive Self-Marking Qualifications Adaptive Self-Marking Qualifications Adaptive Self-Marking Qualifications Adaptive Self-Marking Qualifications Adaptive  
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forskills.co.uk

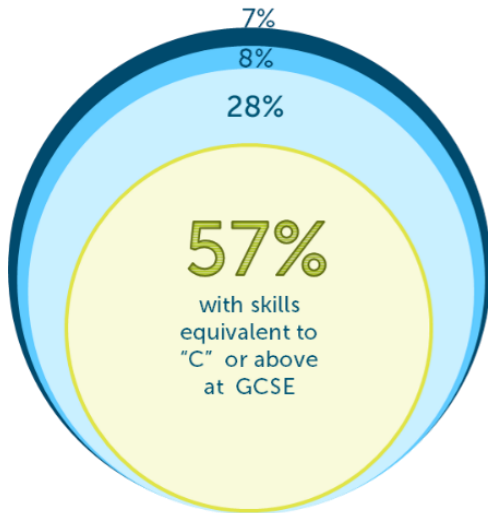


# Mike Ellicock National Numeracy

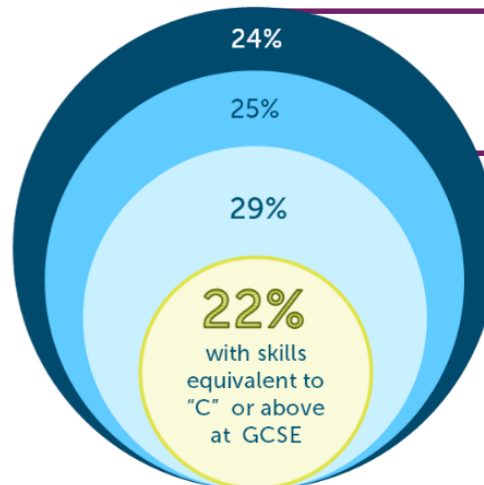
@mikeNatNumeracy #nnforum

# Poor numeracy is pervasive— yet often hidden

## Adult Literacy



## Adult Numeracy



**17 million adults**

(49% working age population)  
at similar levels to those expected of children at primary school

Below Entry Level 3:	Level expected at age 9
Entry Level 3:	Level expected at age 11
Level 1:	Level expected at age 14

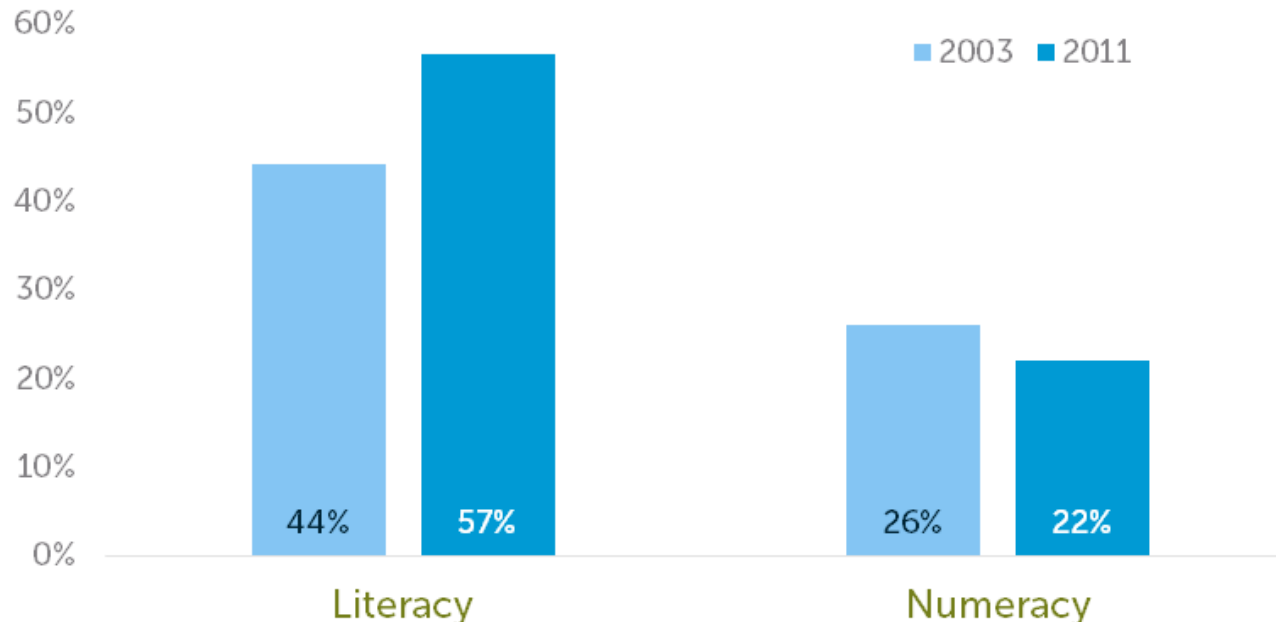
Source: Department for Business Innovation and Skills. 2012. "The 2011 Skills for Life Survey: A Survey of Literacy, Numeracy and ICT Levels in England."

**78%** of adults in England are working below Level 2 - roughly A\* to C at GCSE



# Addressing literacy and numeracy in the same breath is just weird...


Adults with skills equivalent to 'C' or above at GCSE in England:



Source: Department for Business Innovation and Skills. 2012. "The 2011 Skills for Life Survey: A Survey of Literacy, Numeracy and ICT Levels in England."

## Data suggests that school mathematics is not delivering a numerate workforce...

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**68%**  
achieve  
**A\* - C at  
GCSE**

*Department for  
Education Statistics  
2012-2013*

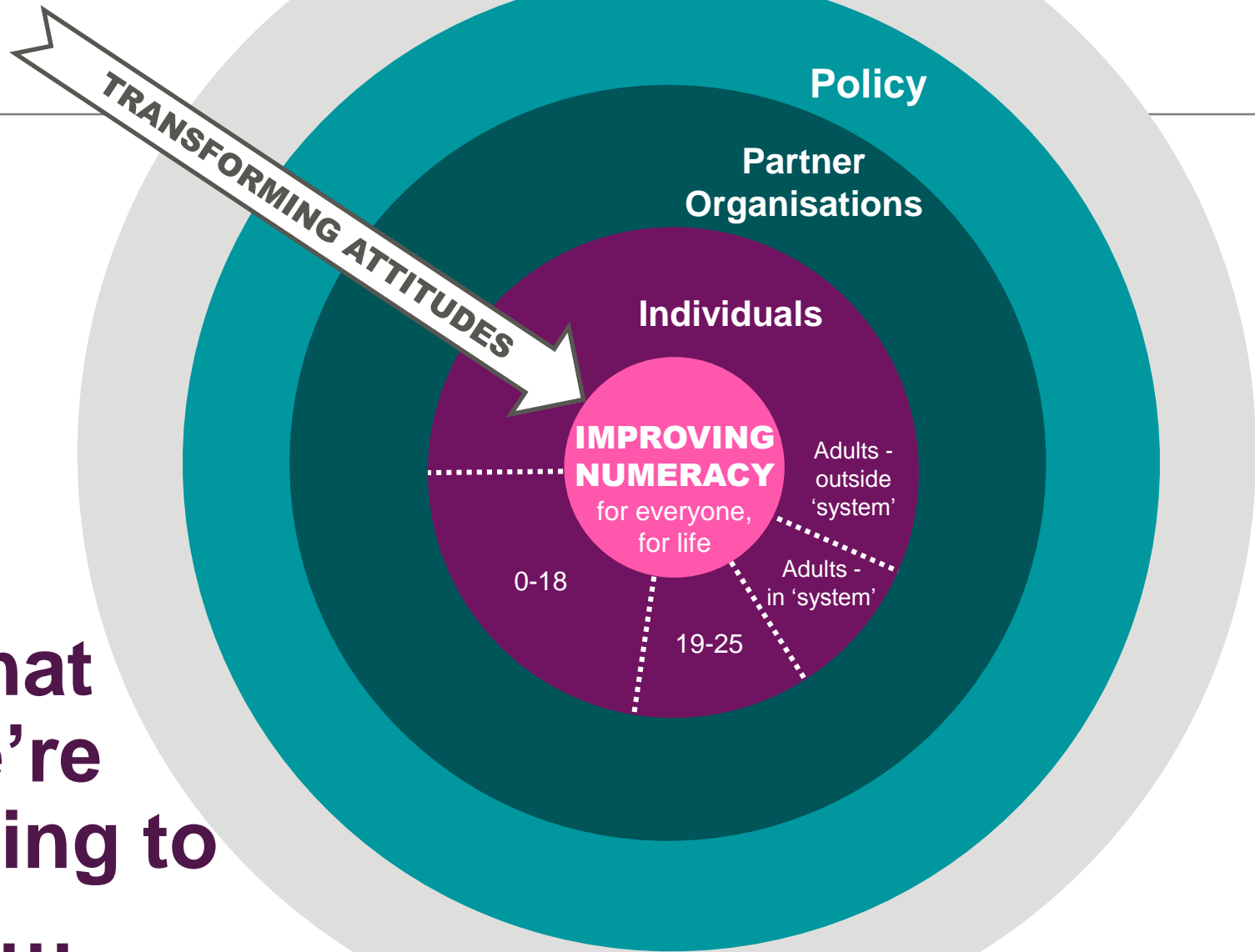


**24%**

of 16-24 year olds *who  
achieve a GCSE A\*-C* are at  
the equivalent Adult Skills  
Level

*Department for Business, Innovation  
and Skills "Skills for Life Survey 2011".*

School mathematics is ever about more complex maths in very simple settings yet what everyone needs in the real world is rather simple maths in complex settings...



**What we're trying to do...**

# Questions and discussion

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# Future plans and AOB

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# Thank you

@Nat\_Numeracy #nnforum