National Numeracy
for everyone, for life

National Numeracy
Phoenix House 32-33
North Street
Lewes BN7 2QJ

+44(0)1273 915044
enquiries@nationalnumeracy.org.uk
nationalnumeracy.org.uk

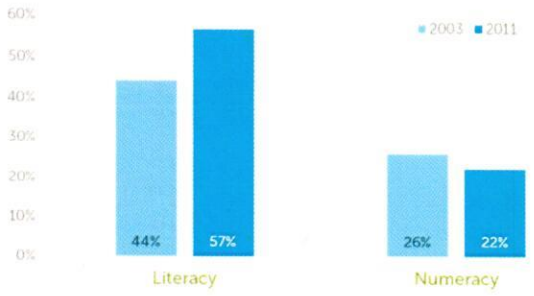
Functional Skills consultation team
Department for Education

3rd November 2017

Dear Team,

I am writing on behalf of independent charity, National Numeracy, founded five years ago to help improve everyday maths across the UK. This response comments solely on numeracy / maths.

Successive governments have focussed on 'English and maths', 'literacy and numeracy' or 'basic skills' – and this Functional Skills revision is the latest in a long line of policy initiative. As this chart shows, the seeming effect of past initiatives has been a positive impact on literacy but not numeracy; a remarkable 78% of adults have numeracy skills below Level 2 and approximately half the adult population are working at Entry Levels. The need for improvement is clear, and is thrown into sharp relief by issues such as the evidenced link that we have helped to establish between numeracy and financial capability (MAS *Numeracy and Financial Capability: Exploring the links* report, Nov 2017), the growing burden of personal debt and ongoing skills shortages in the workplace.



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

We therefore welcome the opportunity to take part in this consultation given that Functional Skills represent the most relevant initial qualification for this majority of the adult population if they were to engage with the formal education and skills system. There are six points that we would like to make and these do not fit neatly into the online form so are made in full here:

1. We recognise the need for reform in Functional Skills qualifications; indeed, the current landscape of mathematics qualifications is complex, and sometimes difficult for employers or learners to make sense of. In particular, the relationship between Functional Skills qualifications and mathematics GCSE is not always clear, and the introduction of T-Levels may complicate the picture further. We believe that the current

National Numeracy
for everyone, for life

National Numeracy
Phoenix House 32-33
North Street
Lewes BN7 2QJ

+44(0)1273 915044
enquiries@nationalnumeracy.org.uk
nationalnumeracy.org.uk

reforms could and should go further in clarifying these relationships, and the distinctive role that Functional Skills qualifications should play.

2. It is important to start by recognising that Functional Skills and GCSE mathematics are qualitatively different subjects – albeit with some overlap. While GCSE provides a general introduction to a wide range of mathematical topics and techniques, Functional Skills should focus on developing the ability to cope with the numeracy demands of the workplace and everyday life. These go well beyond simple one-line calculations or the artificial 'problems' that learners are often presented with. Genuinely numerate behaviour means being able to deal with poorly defined problems, incomplete data and alternative approaches.

3. We are concerned that the proposed content adds significant amounts of mathematical material, while watering down the functional mathematics that should be at the heart of the course. We assume that this has been done in order to make the qualifications more rigorous, but we fear that the effect will be the opposite of what was intended. By reducing functional mathematics to short questions designed to test small sets of content, the danger is that the subject will become a sort of 'GCSE light' that focuses on trivial problems that have little to do with the real mathematical demands of the workplace or everyday life.

4. We believe that this review should have provided an opportunity to rethink post-16 mathematical pathways for students who fail to 'pass' GCSE at grade 4 or above. The cohort-referenced nature of GCSE means that a resit culture is poorly suited to the needs of learners who have already 'failed' the exam; cohort referencing ensures that a proportion of learners will fail any iteration of the examination, even if they have achieved a useful level of numeracy. What would be more useful (for learners and employers alike) is to have a criterion-referenced qualification that could show when learners have achieved a basic level of mathematical functionality. Functional Skills mathematics could become that qualification – for adults and for post-16 entrants. Our work in universities as part of the Nuffield-funded Q-Step programme is showing very clearly that those students with a pass at GCSE are not necessarily functionally numerate. Given that basic numeracy is a fundamental requirement in all workplaces, it may be that a well-designed Functional Skills qualification comes to serve as a 'Numbers and data driving test' similar to National Numeracy's 'Essentials of Numeracy' assessment.

5. The view of problem-solving that is incorporated in the consultation document is artificial, simplistic and unhelpfully different to the models that are already used in other key models - including Key Stages 1 - 4, GCSE, Core Maths, A Level and the OECD/PISA problem-solving cycle. We think that the proposed progression in problem solving will

National Numeracy
for everyone, for life

National Numeracy
Phoenix House 32-33
North Street
Lewes BN7 2QJ

+44(0)1273 915044
enquiries@nationalnumeracy.org.uk
nationalnumeracy.org.uk

encourage a mechanistic approach to mathematical problem solving that will not help to prepare learners for the real demands of the workplace. The approach suggested is not useful for employers; the focus on short questions without a calculator seems to be preparing learners for the 19th century schoolroom rather than the 21st century workplace.

6. Functional Mathematics is a subject that requires skilful teaching, but the reality is that many of the Further Education colleges in which the subject is largely taught struggle to recruit and retain teachers with the skills and experience needed to deliver the course effectively. The proposed revisions may therefore be welcomed, in some quarters, for all the wrong reasons. An examination course that focuses on delivering long lists of content and reducing functionality to a mechanistic combination of operations may be easier to staff and deliver; it is unlikely to have a positive impact on genuine mathematical functionality.

I hope these points are clear and we would of course be happy to discuss them further with the team, colleagues and with Ministers.

Yours sincerely,

Mike Ellicock
CEO