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# Have You Seen This?

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Mathematical skills in the Workplace

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The seriousness of the shortage of mathematical literacy skills in the UK working population is made explicit in a recent report from the Science Technology and Mathematics Council (STMC), where the extent and lack of mathematical skills in the workforce are given. The report, launched on 13 January by Lord Sainsbury, Parliamentary Under-Secretary of State for Science and Innovation, Department of Trade and Industry, made recommendations under the following headings:

1. Raising Visibility and Awareness of the Importance of Mathematical Literacy in the Workplace;
2. Generate models for training/Professional Development to promote mathematical literacy;
3. Identify/further define core concepts which provide the basis of mathematical literacy – this has implications for pre-employment education and training;
4. Communications with employers should recognise that employers need to understand the mathematical literacy they can expect from national qualifications;

Evidence to support the recommendations was taken from seven case study workplaces: Electronic

Engineering and Optoelectronics; Financial Services; Food Processing; Health Care; Packaging; Pharmaceuticals; Tourism. A non-exhaustive list of 36 areas of mathematical skills used in these sectors is given and provides evidence of the pervasive nature of mathematical activity in the workplace. My interpretation is that twenty-five of them (70%) are in the area of *statistical literacy (numeracy)*.

Clearly there is a national emergency to address the lack of mathematical skills in the UK workplace, so...

Please read the report, or even just its summary, and let's use the Mathstore web site as the forum for a national discussion on what should be done.

Hoyles C, Wolf A, Molyneux-Hodgson S and Kent P: *Mathematical Skills in the Workplace*  
STMC and the Institute of Education, London, 2002  
Executive summary at <http://www.stmc.org.uk/pdf/mathskills-foreword.pdf>  
Full report at <http://www.stmc.org.uk/pdf/mathskills-work-final.pdf>

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## Something that worked for me ..

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**"Who wants to be... The Use of a Personal Response System in Statistics Teaching"**  
Dr Ernst Wit, Department of Statistics, University of Glasgow

In the popular TV programme "Who wants to be a millionaire?" the candidates can ask the audience to help them answer a difficult question. The public picks up its handsets and votes for several possible answers. The votes are anonymous and show up as a bar chart on the screen. Essentially it is this technology and the implementation thereof in a statistics course taught to non-statistics undergraduate students that is central to an article we will be carrying in the May newsletter.

For almost ten years now Statistics for Psychologists (S1C) has been a successful, large scale, intensive

statistics course taught to first year psychology students at the University of Glasgow. Whereas the transfer of practical skills through small scale labs have always been central in the course, lectures and tutorials attempted to teach statistical concepts. However, the large number of students resulted in a lack of attendance and interaction. Forced to rethink this aspect of the course, we found that the handset system increased attendance, provided useful feedback from lecturer to student and vice versa and, most importantly, enthused students.