Numeracy Review
1. Numeracy in the UK – The Issue

Poor numeracy – or everyday maths - is a big issue in the UK; arguably the biggest single education and skills issue facing the country. In 2012, the Skills for Life survey showed that around 4 out of 5 adults have a level of numeracy below the equivalent of a C at GCSE, with 49% of adults at a level expected of primary school children. Research commissioned by National Numeracy and carried out by Pro Bono Economics estimates that this results in a cost to the economy of up to £20.2 billion annually. This is 1.3 % of the UK's GDP and costs UK employers around £3.2 billion per year.

Poor numeracy affects many employers and will continue to do so. In their annual survey, the CBI found that 68% of employers were concerned about their employee’s ability to sense check numbers. The 2014 International Survey of Adult Skills (PIAAC) concluded that given the global skills landscape, “the talent pool of skilled adults in England and Northern Ireland is likely to shrink relative to that of other countries”.

About one third of the UK already know that they would like to improve their numeracy¹ - they recognise the issues they face in using maths in day to day scenarios. GCSE maths has brand value, but it singularly fails to provide a numerate workforce. In fact, only 24% of 16-24 year olds who achieved A*-C at GCSE reached the equivalent level in a Skills for Life assessment.

To create a productive, innovative workplace, employers need to ensure their employees are numerate. Being numerate means being able to reason with numbers and other mathematical concepts and to apply these in a range of contexts and to solve a variety of problems. Being numerate is as much about thinking and reasoning logically as about ‘doing sums’. It means being able to:

- Interpret data, charts and diagrams
- Process information
- Solve problems
- Check answers
- Understand and explain solutions
- Make decisions based on logical thinking and reasoning.

2: Aims of the Numeracy Review

The Numeracy Review offers an in-depth understanding of numeracy within your organisation. The Review will provide insight into actual numeracy levels and current attitudes to numeracy among your staff. This will be based upon a brief survey of a relatively large sample of colleagues, and completion of the Challenge Check-Up from a smaller sample. It will allow the organisation to benchmark its current position and consider strategies for effecting change.

The aims of the Review are to:

1. Measure the scale of poor numeracy among staff and understand key areas where this may be impacting on the organisation.
2. Analyse and present the current situation through a report which summarises numeracy levels in the organisation, with strengths and weaknesses mapped against the Essentials of Numeracy (our core model of the key skills and competencies).
3. Identify what attitudes, values and beliefs employees have about maths using our unique attitudinal review.
4. Offer a range of solutions for improving employees’ numeracy.
5. Quantify the possible financial impact on this to the organisation.

¹ This was a finding of our annual YouGov survey – a survey representative of the UK population.
3. Our Tools

- Our unique tool to address adult numeracy is the National Numeracy Challenge and well over 2,000 learners have improved their numeracy using the Challenge to date.

The Challenge Check-Up provides an adaptive assessment of an individual’s current attainment before routing them into appropriate learning resources within the Challenge to help them improve. This routing is tailored to each participant to ensure that those who are benefiting from the resources have a genuine and ongoing role in their own learning. It also promotes sustainable learning as the learner can access the Challenge from any location and from pre-employment into employment as part of a long-term package of support.

The Challenge Check-up provides what our experts believe to be the most accurate tool to measure someone’s functional numeracy skills in the shortest amount of time.

The Challenge Journey:

The Check Up can be retaken at any stage, thus providing a measure of ‘distance-travelled’ that is useful for the learner themselves, and your organisation’s understanding of improvement.

- Our attitudinal survey has been developed by our education and research team using the latest research on the behaviours, attitudes, and beliefs needed to be numerate.
4. What’s Involved

**National Numeracy will:**

- Provide a “Memorandum of Intent” to form an agreement, outlining the terms of the Review.

- Provide a selection of questions for an Attitudinal Survey for your team to consider and approve. From this an electronic survey will be created that can be shared with employees and accessed via mobile, tablet or PC.

- Incorporate any data that may have previously been collected by your organisation on numeracy with the aim of integrating that into the analysis and interpretation contained within the Review.

- Discuss and identify with your team how the Challenge data should be presented so that we can understand how numeracy affects different job roles or regional areas in your organisation.

- Monitor and provide feedback on engagement figures periodically throughout the agreed period.

- Collate and analyse the data collected from the surveys and the Challenge Check-up and present this back to your team in the Numeracy Review document.

**You will:**

- Sign off the “Memorandum of Intent”, agreeing the terms of the Review.

- Send National Numeracy any previous data that may have already been collected from internal surveys around numeracy.

- Provide a Lead Contact within the organisation to co-ordinate the project as follows:

  - Review and sign off National Numeracy’s Attitudinal Survey questions internally to agree key outcomes for the business can be met.

  - Decide which departments / locations will take part in the Review so that unique access codes can be allocated appropriately.

  - Monitor engagement figures provided by National Numeracy periodically over the agreed period and provide additional incentive and motivation for employees to take part – if required.

  - Ensure that at least 10% of employees across selected departments complete the Attitudinal Survey.

  - Ensure that at least 5% of employees across selected departments, complete the online Challenge Check-Up, in addition to the Attitudinal Survey.
5. Timeline

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<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Responsibility</th>
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<tbody>
<tr>
<td>Prior to start date</td>
<td>Memorandum of Intent signed and returned to National Numeracy</td>
<td>Your team</td>
</tr>
<tr>
<td></td>
<td>Attitudinal Survey agreed and converted into electronic format</td>
<td>National Numeracy/Your team</td>
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<td></td>
<td>Existing survey information sent over to NN for analysis</td>
<td>Your team</td>
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<tr>
<td>2 weeks from start date</td>
<td>Your employees complete the Attitudinal Survey and the Challenge Check-Up</td>
<td>Your team</td>
</tr>
<tr>
<td>3 weeks from start date</td>
<td>Numeracy Review complete and sent to your team</td>
<td>National Numeracy</td>
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<tr>
<td>4 weeks from start date</td>
<td>Follow up call with your team to discuss findings of the Numeracy Review and discuss next steps</td>
<td>National Numeracy/Your team</td>
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6. Output

A printed and digital Numeracy Review that includes the following:

- Baseline data on numeracy in the UK, and within the sector
- An overview of the evidence around the importance of numeracy in the workplace and for employee wellbeing
- Analysis of behaviour and attitudes towards numeracy among your staff
- Analysis of numeracy levels, showing areas of strengths and weaknesses of the participants who have been assessed on the Challenge Check-up mapped against the Essentials of Numeracy.
- Recommendations on ways to improve numeracy including potential options offered by National Numeracy.