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# MeeMo trial in Year 3/4

The whole-class working memory programme

Claire Lotriet – Henwick Primary – 27 May 2015

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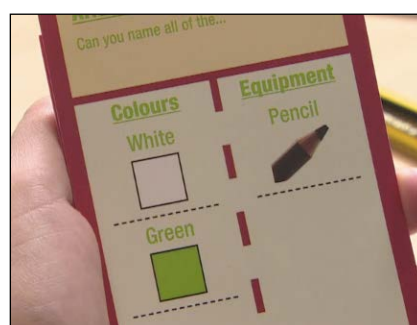
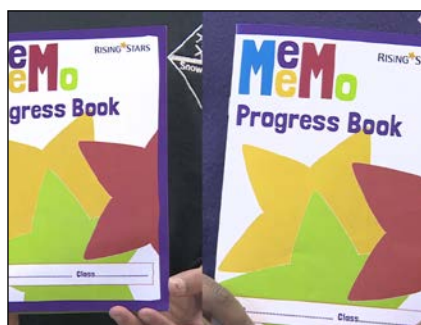


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## Introduction

Working memory is defined as the ability to process information – a vital and large part of what is called ‘intelligence’. In fact, tests of working memory alone are better predictors of a child’s national curriculum achievement than full IQ tests. Short-term memory is the ability to store information.

We need to use our working memory all day, every day. Improving working memory is essential in order for children to achieve, both academically (reading, maths, comprehension, etc.) and socially (behaviour and self-esteem).



### How MeeMo is delivered

MeeMo is delivered daily, for 15 minutes, over six weeks. It is a whole-class programme, as it was designed so that all children, whatever their starting point, can benefit from it. It is based around paired card games, with each child taking turns as the ‘Questioner’ and the ‘Thinker’.

Children’s short-term and working memory are individually assessed at the beginning and the end of the six-week period. The score from these is transferred into percentile and placed into one of the categories below:

- *Extremely Disadvantaged*
- *Disadvantaged*
- *Low Average*
- *Average*
- *High Average*
- *Advanced*
- *Exceptional*

## Henwick trial – Summer 1 2015

**Sample size:** 28 children (14 Year 3, 14 Year 4)

**Setting:** mixed ability Year 3/4 class

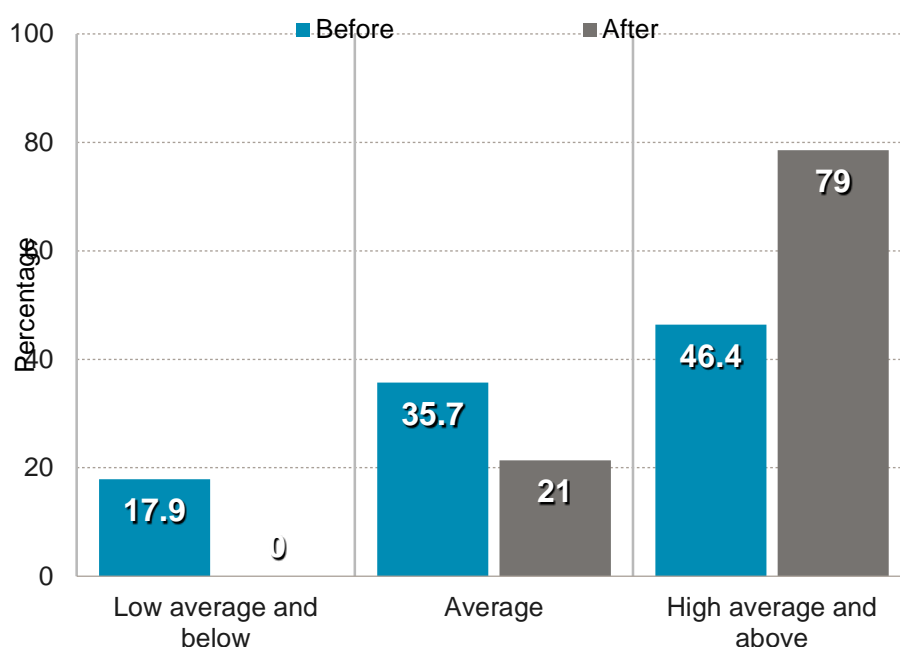
**Delivered by:** Class teacher and Lead KS2 Teaching Assistant

## Impact

### Headlines

- 71.4% of children improved their working memory
- 21.4% of children’s working memory stayed the same
- After the programme, 100% of children had average or above working memory scores
- 78.6% now have above average working memory scores

Working memory scores	Before MeeMo	After MeeMo
<i>Low average/Disadvantaged/Extremely Disadvantaged</i>	17.9%	0%
<i>Average</i>	35.7%	21.4%
<i>High Average/Advanced/Exceptional</i>	46.4%	78.6%



### Points of note

- Less impact was made on the short-term memory; however, that was stronger than working memory across the board initially.
- An average short-term memory does not equal an average working memory. Some children, who had an average short-term memory before the programme began, were still significantly weaker in terms of their working memory, e.g. one Year 4 girl was in the 63rd percentile for short-term memory, but only the 5th percentile for working memory. Another Year 4 boy was in the 25th percentile initially for short-term memory, but 0.4 percentile for working memory.
- Interestingly, of the six children whose working memory stayed the same, five already had a high average, advanced or exceptional working memory. It seems the ‘big jumps’ in progress were seen in children who had average or below working memories at the beginning.

Some standout individual cases – working memory progression from:

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- 50th to 99th percentile (*Average to Exceptional*)
  - 25th to 99.6th percentile (*Average to Exceptional*)
  - 9th to 95th percentile (*Low Average to Advanced*)
  - 0.4 percentile to 84th percentile (*Extremely Disadvantaged to High Average*)

### **Staff thoughts**

*MeeMo was accepted by the 3/4 Year Group of children with mixed feelings of anxious and nervous behaviour. The initial assessment of the children reflected this. The first week started off quite slowly and with bouts of lacking confidence. In week two and onwards, in the main, their confidence grew. Some of the children established personal tactics for remembering and created personal skills that worked for them. On the final week of MeeMo, some of the children's speed had doubled. They thoroughly enjoyed this project and didn't want it to end. When I reassessed them to compare results, I noted an obvious change in their attitude to one of excitement, wanting to know how they had done and if they had improved their short-term and long-term working memories. I personally thoroughly enjoyed MeeMo and would most definitely recommend it throughout KS2.*

– Lead KS2 TA

### **Pupil voice**

*If you forget something, just think of MeeMo and you can get it back.*

– Year 3 pupil on how MeeMo has helped in maths

*Grouping things helps me remember.*

– Year 4 pupil describing the most successful strategy

*I close my eyes and I just think of the words and count it on my fingers and I get it right.*

– Year 4 pupil on the strategy developed using MeeMo

*I close my eyes and tap my fingers.*

– Year 3 pupil describing the strategy used while doing MeeMo

### **Next steps**

- With the help of the Lead KS2 TA, run the programme in Year 5 in summer 2 and in Claire's maths set to boost children with working memory issues for Year 7 transition
- In next trials, monitor subject specific impact, e.g. recall of maths facts/times tables or similar
- Run across all KS2 classes in autumn 1 and 2 2015/16