

Results of Move4words trials in the UK classroom. Paper 1 – Overview of improvements in Reading Age.

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Abstract:

Move4words brings about large improvements in reading age for children in Years 4, 5, 6 and 7 three to five times greater than normal age-related reading progress (N = 248), and brings significantly more benefit than regular classroom teaching methods without Move4words (N = 108). Children with lower ability benefit most, although benefits are observed for all ability ranges. There is NO evidence of any negative effects, for example in terms of loss of teaching time taken to use the programme.

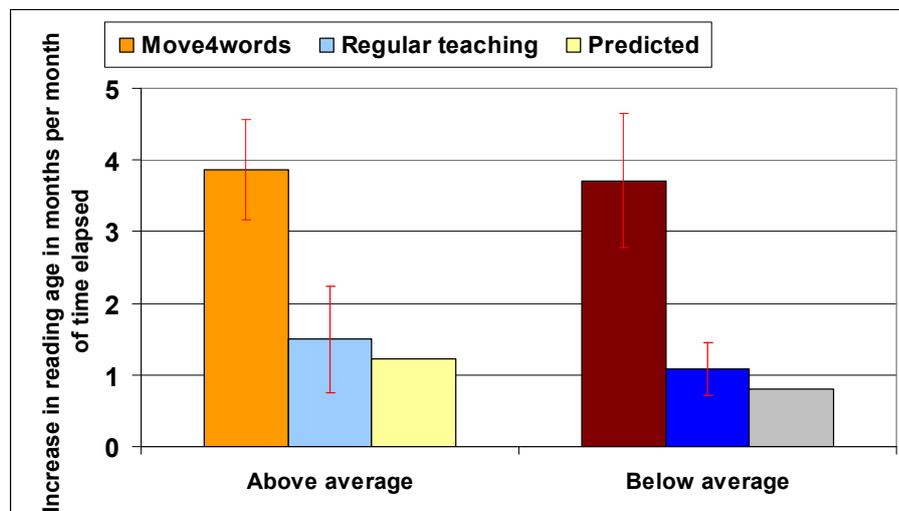


Figure 1.1: Comparison of increase in reading age in months per month of time elapsed between values predicted from reading test normalisation (grey and cream bars) and values obtained from 248 children in Years 4, 5, 6 and 7 on the Move4words programme (Yellow and Brown bars) or 108 children from Year 4 on regular teaching (pale and dark Blue bars). The vertical red lines indicate 95% confidence limits on the data.

Below-average readers:

The Move4words group were 105 below-average readers from Year 4, 5, 6 and 7 (ranging in age from 8 ½ to 12 ½ years), who started an average of 18 months behind in reading. This group lost 20 to 30 minutes per day from their normal teaching timetable to do Move4words. Regular literacy support continued throughout the programme. The group reading age improved by an average of **12 months** in a 2.25 to four month period, which is an improvement of 3.7 ± 0.22 months per month of time elapsed (\pm indicates the 95% confidence limits). Improvements in month per month were calculated for each class group, and then combined, to make sure that the correct time elapsed was used for each group.

Reading age tests are based upon “normalisation” whereby the typical reading progress of children of a wide range of ages and abilities is determined by large-scale testing of many thousands of children during the development of the test. The reading age test data can then be used in reverse to extract the expected reading age progress for a specific group. We have used reading age test data to determine what these expected progress rates are for the ability levels and ages of children in these trials. For our below-average readers, the expected reading progress is estimated to be 0.75 months increase in reading age per month of time elapsed. If we compare the 3.7 months increase in reading age per month of time elapsed obtained on the Move4words programme with the expected progress, we find that the below-average readers improved **five times more** than expected!

Data from a comparison group of 48 below-average readers from Year 4 are also available. This group participated in normal teaching and started an average of 14 months behind in reading. This group's reading age improved by 4.3 months in a 4 month period, an improvement of 1.1 ± 0.13 months per month, very similar to the expected increase of 0.85 months per month for the ability level of this particular group. These students participated in the Move4words programme later in the year.

The Move4words pupils improved significantly more than pupils who did not do Move4words, the details of the controlled trials are given in papers 2 and 4.

Above-average readers:

The Move4words group were 143 above-average readers from Year 4, 5, 6 and 7 (ranging in age from 8 ½ to 12 ½ years), who started an average of 18 months ahead in reading. This group lost 20 to 30 minutes per day from their normal teaching timetable to do Move4words. Again, regular literacy support continued throughout the programme. Their reading age improved by an average of **14 ½ months** in a 2.25 to 4 month period, an improvement of 3.9 ± 0.22 months per month of time elapsed. The expected rate of reading progress for these children has been estimated from reading age test normalisation to be 1.25 months per month of time elapsed. So the above average readers improved **three times more** than expected.

The comparison group were 60 above-average readers from Year 4, who participated in normal teaching and started an average of 18 months ahead in reading. This group's reading age improved by 6 months in a 4 month period, an improvement of 1.5 ± 0.25 months per month, similar to the expected rate of reading progress of 1.2 months per month estimated from reading age test normalisation for the ability level of this particular group. These students participated in the Move4words programme later in the year.

Again, the Move4words pupils improved significantly more than pupils who did not do Move4words (see paper 2).

| M4W group | N | Above average readers | | N | Below average readers | |
|--------------------------------------|----|---|--------------------------------|----|---|-------------------------------|
| | | Change in reading age in months per month of time elapsed | Reading advance (months ahead) | | Change in reading age in months per month of time elapsed | Reading delay (months behind) |
| Year 4 | 73 | 4.13 | 18.00 | 48 | 2.38 | -12.84 |
| Year 5 | 9 | 2.53 | 14.76 | 10 | 3.00 | -20.04 |
| Year 6 | 14 | 1.50 | 21.60 | 13 | 5.00 | -8.72 |
| Year 7 | 47 | 4.40 | 24.00 | 34 | 5.32 | -28.92 |
| Combined Mean | | 3.86 | +18.00 | | 3.71 | -18.22 |
| 95% confidence limits on mean | | ± 0.70 | | | ± 0.94 | |
| Regular Teaching group | | | | | | |
| Year 4 | 60 | 1.5 | +17.76 | 48 | 1.08 | -13.8 |
| 95% confidence limits on mean | | ± 0.74 | | | ± 0.37 | |

Table 1.1: Values used to calculate trial mean values for increases in reading advancement brought about by the Move4words programme. Time elapsed between tests varied between 2.25 to 4 months.

Conclusions:

The results of trials of the Move4words programme in the classroom demonstrate that the Move4words programme has a significant positive impact on reading ability for children from Years 4, 5, 6 and 7 in comparison to normal teaching and literacy support. This study shows that the addition of the Move4words programme to the school day can more than triple the effectiveness of normal classroom literacy support methods for improving reading, and is more effective for below-average readers, reducing the achievement gap.