

Professor Rhona Johnston's response to C. Torgerson et al's (2006) meta-analysis

Summary.

There is a very small literature comparing the effects of synthetic versus analytic phonics teaching, too small to attempt a meaningful meta-analysis.

However, an unpublished non-peer reviewed article by C. Torgerson et al (2006) attempted just such a comparison, and they concluded that there was no clear outcome as to whether synthetic or analytic phonics was the most effective.

This meta- analysis limited its review to randomised controlled trial studies, without showing any evidence that controlled trial studies led to any bias in findings.

A close inspection of this review shows that errors were made in deciding which studies should be included in the comparison, and in deciding which data should be entered into the calculations.

Both of these problems are evident in the inclusion of an unpublished study by Skailand (1971); this study did not have a valid implementation of the synthetic phonics method, and C. Torgerson et al (2006) used the wrong post-test data in their analyses.

A serious error also occurred in their use of data from the J. Torgesen et al (1999) study. Post-test data were taken from one-fifth of the way into the intervention, at a stage when one group was doing a method that develops early sight word reading (EP/analytic phonics) and the other group was largely developing phoneme awareness skills in the absence of print (PASP).

This error led C. Torgerson et al (2006) to conclude that in this study the children learnt to read better with analytic phonics. However, J. Torgesen et al (1999) concluded the opposite from their end of intervention data - that children learnt to read better with synthetic phonics. The recalculated pooled estimate of effect size for the Johnston and Watson (2004, Experiment 1) and J. Torgesen et al (1999) studies, using post-test data from the end of their interventions, strongly favours synthetic phonics.

Finally, C. Torgerson et al (2006) argued in their report that Johnston and Watson's (2004, Experiment 1, Clackmannanshire Study) finding favouring synthetic phonics was largely due to regression to the mean, a statistical artefact, as these children came from more deprived homes than the children in the analytic phonics condition.

However, regression to the mean cannot have operated in this study, as the children in all of the conditions were non-readers on a standardised test of word reading administered at the start of the study.

This claim is therefore unfounded.