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# Technical Appendix

## Homework (Primary)<sup>i</sup>

Low impact for very low cost, based on limited evidence

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### Definition

Homework refers to tasks given to pupils by their teachers to be completed outside of usual lessons. Common homework activities in primary schools tend to be reading or practising spellings and number facts, but may also include extended activities to develop inquiry skills or more directed and focused work such as revision for tests.

Search terms: homework, homework clubs, home assignment, home reading, flipped learning

### Evidence Rating

Homework has been extensively researched. However, studies have mainly looked at the correlation between homework and how well schools or pupils perform, especially for younger children. There is a relatively consistent finding that there is a positive association but that this is very small for primary age pupils. There are only a small number of studies which have investigated what happens when homework is introduced and comparison is made with classes where homework is not given, and there is very little evidence of this kind specifically for primary age pupils. The studies there are tend to show that homework can be beneficial, though the evidence is not secure. The variation in what is assigned as 'homework' and how this relates to what happens in school means the variation in reported impact between different studies is always likely to be large. There are two meta-analyses, one published in the last ten years, and one recent systematic review. There are no meta-analyses which specifically focus on homework for primary age pupils. Overall the evidence is rated as limited.

### Cost Information

There are few costs associated with homework, though there are implications for staff time for preparation and marking. With younger children there may be additional resources required (such as reading books or games for children to take home). Overall costs are estimated as very low.

## References

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## Summary of effects

Meta-analyses	Effect size	FSM effect size	
Cooper, H., Robinson, J.C., Patall, E.A. (2006)	0.1	-	(correlation for elementary)
Farrow, S., Tymms, P., & Henderson, B. (1999)	0	-	(correlation)
Paschal, R.A., Weinstein, T. & Walberg, H.J. (1984)	0.36	0.15	(all ages)
Single Studies			
Median	0.1		

## Meta-analyses abstracts

### 2

#### Cooper, H., Robinson, J.C., Patall, E.A. (2006)

In this article, research conducted in the US since 1987 on the effects of homework is summarized. Studies are grouped into four research designs. The authors found that all studies, regardless of type, had design flaws. However, both within and across design types, there was generally consistent evidence for a positive influence of homework on achievement. Studies that reported simple homework-achievement correlations revealed evidence that a stronger correlation existed a) in Grades 7-12 than in K-6 and b) when students rather than parents reported time on homework. No strong evidence was found for an association between the homework-achievement link and the outcome measure (grades as opposed to standardized tests) or the subject matter (reading as opposed to math). On the basis of these results and others, the authors suggest future research.

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## 4

Farrow, S., Tymms, P., & Henderson, B. (1999)

An analysis of data relating to homework in the final year of primary school is reported in the core areas of mathematics, English and science. Information was available on achievement levels, attitudes, developed ability, cultural capital and sex. Widespread variation in reported homework frequency emerged in the core subjects in primary schools, as did significant differences between girls and boys for mathematics and reading. The findings indicated that the highest test scores were achieved by those pupils who reported doing homework 'once a month' in each of the core subjects. Homework reported more frequently than 'once a month' was generally associated with lower attainment. Multilevel models that controlled for important variables did not lend support to the 'more is better' view of homework. Our contention is that the assumptions about the value of homework (largely derived from secondary school practice and experience) should not be automatically 'grafted on' to primary practice. More serious consideration should be given to the nature and frequency of homework setting in primary schools.

## 6

Paschal, R.A., Weinstein, T. & Walberg, H.J. (1984)

This paper synthesizes empirical studies of homework and of various homework strategies on the academic achievement and attitude of elementary and secondary students. A computer search yielded 15 published and un published studies with explicit statistical results. Fifty-four characteristics of treatments, contexts, conditions, validity, and outcomes were coded for each study. About 85% of the effect sizes favored the homework groups. The mean effect size is .36 (probability less than .0001). Homework that was graded or contained teachers' comments produced stronger effects (.80).

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