

Homework (Secondary)

Moderate impact for very low cost, based on limited evidence.



Homework refers to tasks given to pupils by their teachers to be completed outside of usual lessons. Common homework activities in secondary schools include completing tasks assigned in lessons, preparing for tasks in future lessons, routine coursework, and revision for tests and examinations. Our definition also includes activities such as 'homework clubs' where pupils have the opportunity to complete homework in school but outside normal school hours, and 'flipped learning' models, where pupils prepare at home for classroom discussion and application tasks.

How effective is it?

The evidence shows that the impact of homework, on average, is five months' additional progress. However, beneath this average there is a wide variation in potential impact, suggesting that how homework is set is likely to be very important.

There is some evidence that homework is most effective when used as a short and focused intervention (e.g. in the form of a project or specific target connected with a particular element of learning) with some exceptional studies showing up to eight additional months' positive impact on attainment. Benefits are likely to be more modest, up to two to three months' progress on average, if homework is more routinely set (e.g. learning vocabulary or completing practice tasks in mathematics every day).

Evidence also suggests that how homework relates to learning during normal school time is important. In the most effective examples homework was an integral part of learning, rather than an add-on. To maximise impact, it also appears to be important that students are provided with high quality feedback on their work (see [Feedback](#)).

Some studies indicate that there may be an optimum amount of homework of between one and two hours per school day (slightly longer for older pupils), with effects diminishing as the time that students spend on homework increases.

How secure is the evidence?

Homework has been extensively researched. There is a relatively consistent picture that pupils in schools which give more homework perform better. However, there are only a small number of studies which have investigated whether this relationship is due to the homework itself, rather than other school factors. These studies compare classes where homework is introduced to similar classes where homework is not given. They tend to show that homework can be beneficial, but this finding is less secure than the first, because of the smaller number of studies and the quality of the evidence.

What are the costs?

There are few costs associated with homework, though there are implications for staff time for preparation and marking. Overall costs are estimated as very low.

Homework (Secondary): What should I consider?

Before you implement this strategy in your learning environment, consider the following:

1. Planned and focused activities are more beneficial than homework which is more regular but may be routine or not linked with what is being learned in class.
2. The broader evidence suggests that homework should not be used as a punishment or penalty for poor performance.
3. A variety of tasks with different levels of challenge is likely to be beneficial.
4. The broader evidence suggests that the quality of homework is more important than the quantity. Pupils should receive specific and timely feedback on homework.
5. Have you made the purpose of homework clear to children (e.g. to increase a specific area of knowledge, or fluency in a particular area)?

Technical Appendix

Definition

Homework refers to tasks given to pupils by their teachers to be completed outside of usual lessons. Common homework activities in secondary schools are completing tasks assigned in lessons, such as practicing further questions or problems in mathematics, or preparing for tasks in future lessons. It may also include routine course work or revising for tests and examinations. In some models of 'flipped learning', pupils prepare at home for classroom discussion and application tasks. It also includes activities such as 'homework clubs' where pupils are given the opportunity to complete their assigned tasks in school, usually at the end of the school day.

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

Evidence Rating

Homework has been extensively studied and is a controversial topic. Studies have mainly looked at the correlation between homework and how well schools or pupils perform. There is a relatively consistent finding that there is a positive association but that this reduces when ability and home background are taken into account. There are a smaller number of studies which have investigated what happens when homework is introduced and comparison is made with classes where homework is not given, where the typical gain is as much as five or six months additional progress for secondary pupils. There are two meta-analyses, one published in the last ten years, and one recent systematic review. 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. Overall the evidence is rated as limited.

Additional Cost Information

There are few costs associated with homework, though there are implications for staff time for preparation and marking. Some tasks may require additional resources (such as books or materials for pupils to use at 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) | 0.54 | - | (RCT - secondary homework/ no homework) |
| | 0.49 | - | (Secondary, correlational) |
| Paschal, R.A., Weinstein, T. & Walberg, H.J., (1984) | 0.36 | 0.15 | (Primary and Secondary) |
| Weighted mean | 0.44 | | |

The right hand column provides detail on the specific outcome measures or, if in brackets, details of the intervention or control group.

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.

7 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 unpublished 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).