



# The Effectiveness of Homework

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## Introduction

Research on the effectiveness of homework has been inconsistent, and public attitude towards the practice has wavered over the past several decades [1], leaving many teachers and administrators to question whether or not assigning homework is worth the effort. In comparison to other instructional strategies, homework is influenced by a number of outside factors, including the home environment, teacher approaches, and student learning differences. All of these factors make it challenging to isolate the practice of homework and quantify its impact.

However, its long-standing role in American education, coupled with its relatively low cost of implementation, make it a topic worth exploring. This research review examines two main questions:

- Controlling for the multitude of contributing factors, is homework correlated with improved academic outcomes in students, and do these positive outcomes differ by grade level?
- What factors should teachers consider when choosing to assign homework?

## Key Findings

In general, homework is found to have a positive impact on learning, as homework completion is associated with an increased understanding and retention of academic material [2]. However, there are many factors that influence the magnitude of that effect, including parental involvement.

### Parents

Studies find that parental contributions during homework significantly contribute to academic outcomes [3]. Students whose parents offer a supportive approach tend to obtain higher outcomes than students whose parents take a controlling or critical approach [4], [5], [6].

### Homework Design

**Purpose:** Homework usually has one of three purposes: instructional, communicative, or political [7]. Of the different types, homework that has the purpose of extending learning and promoting problem-solving yields the greatest benefit [8]. In contrast, homework whose main purpose is drill and practice has been negatively correlated with achievement [9].

**Grade Level:** Many researchers agree that homework is more beneficial for older students

[10], [11]. In Harris Cooper's seminal 1989 study [12], grade level was an influential factor. He found that the average high school student in a class that was assigned homework scored higher than 69% of students in classes that did not assign homework. However, the magnitude of this effect was half for students in middle school and held almost no association in elementary school.

**Time:** In the same study mentioned above, a positive correlation was found between the amount of time students spent on homework and achievement. However, this finding only held true for certain amounts of time. For high school students, achievement increased until homework lasted more than two hours per night, at which point homework became counterproductive. In junior high, these diminishing returns were found after one to two hours. There was almost no positive association in elementary school.

Cooper [12] concluded that increased time spent on homework does not necessarily lead to improved outcomes because students that take longer to complete assignments may be struggling with content. Trautwein [13] corroborated these findings and argued that homework effort is a better predictor of achievement than homework duration.

Non-academic outcomes also favor a balanced approach, speculating that too much time spent on homework is actually counterproductive because it is associated with greater stress and less time spent on extracurricular activities [14], [15].

**Feedback:** In his research, John Hattie found that homework accompanied by teacher feedback is much more effective than homework without feedback [16], [17]. When students make errors they need to be able to identify and correct them quickly to prevent practicing mistakes.

## Conclusion

While it is difficult to quantify the exact relationship between homework and achievement, the majority of studies to date do yield positive correlations. Quality homework can improve a student's understanding and retention of class material, especially in high school, and compared to other instructional strategies used by schools, it is relatively inexpensive. However, homework is a sacrifice for students, so teachers should take additional steps to ensure that time spent completing homework is worth the effort.

### What does this mean for schools?

- Explicitly state the purpose of the assignment, how long it should take to complete, and how it will be assessed.
- Prioritize homework frequency over volume as short segments of regular review and practice are more beneficial than sporadic, lengthy assignments.
- Give students timely feedback on homework assignments, and use the results to inform instruction. Consider using homework as a formative evaluation tool, allowing students to self-reflect on their confidence with the assigned material [18].
- Differentiate assignments to ensure they build both competence and confidence.
- For younger students, pair homework assignments with explicit lessons on how to study [1].
- Guide parents in understanding the best ways to help their children with assignments, and ensure that parents have the necessary prerequisite knowledge before assigning homework that requires parental assistance [5].

## Resources

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