

**Reference Desk Response No. 415:
Impact of Homework on Student Achievement**

Question:

1. What is the current research on the effect of homework on student achievement?
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Report:

Following an established REL-NEI Reference Desk research protocol, we conducted a search for research reports as well as descriptive and policy-oriented briefs and articles in this area. The sources included federally funded organizations and a general Internet search using Google. We have not done an evaluation of these organizations or the resources themselves, but offer this list to you for your information only.

Our researchers have found evidence supporting the link between homework and improved student achievement. Trends in the National Assessment of Educational Progress (NAEP) show that the optimal amount of homework varied with student age. One resource stated that, “at age 13, students who spent 1 to 2 hours or 2 or more hours on homework had higher average reading scores than their peers who spent less than 1 hour on homework, did not do their homework, or did not have any homework to do” and continues that “at age 17, students who spent 2 or more hours on homework had higher average reading scores in 2004 than those who spent 1 to 2 hours, whose scores were higher than those who spent less than 1 hour, whose scores in turn were higher than those who did not do any homework.” (NAEP, 2005; see resource below)

Additionally, research by the National Center for Education Statistics found that the positive relationship between the amount of time spent on homework and improved student achievement “is influenced by such factors as differences in students’ grade level.” (1996; see resource below)

Question:

1. **What is the current research on the effect of homework on student achievement?**

1.1. NAEP 2004 Trends in Academic Progress: Three Decades of Student Performance in Reading and Mathematics. *Perie, M. and Moran, R.; Jul. 2005; National Center for Education Statistics.*

Source: Institute of Education Sciences

(<http://nces.ed.gov/nationsreportcard/pubs/2005/2005464.asp>)

The executive summary reads on page vi that “students who took the reading assessment were asked how many hours they had spent on homework the previous day.” The summary continues that “in 2004, the average reading score of 9-year-olds who spent less than 1 hour on homework was higher than the average reading scores of students who did not do the homework that was assigned or who spent more than 2 hours on homework.” On page vii, the summary reads that “at age 13, students who spent 1 to 2 hours or 2 or more hours on homework had higher average reading scores than their peers who spent less than 1 hour on homework, did not do their homework, or did not have any homework to do” and continues that “at age 17, students who spent 2 or more hours on homework had higher average reading scores in 2004 than those who spent 1 to 2 hours, whose scores were higher than those who spent less than 1 hour, whose scores in turn were higher than those who did not do any homework.”

1.2. The Nation's Report Card: Fourth-Grade Reading 2000. Donahue, P. L., Finnegan, R. J., Lutkus, A. D., Allen, N. L., and Campbell, J. R.; Apr. 2001; National Center for Education Statistics.

Source: Institute of Education Sciences

(<http://nces.ed.gov/nationsreportcard/pubs/main2000/2001499.asp>)

The executive summary of this report reads on page xi that “fourth-graders who reported reading more pages daily in school and for homework had higher average scores than students who reported reading fewer pages daily.” Page xi also reads that “fourth-graders who reported spending a moderate amount of time on homework -- one-half hour or one hour daily -- had higher average scores than students who reported that they spent more than an hour or that they either did not have or did not do homework.”

1.3. Education Indicators: An International Perspective, Indicator 25: Time Spent on Homework. National Center for Education Statistics; Nov. 1996; NCES 96-003

Source: Institute of Education Sciences

(<http://nces.ed.gov/pubs/eiip/eiipid25.asp>)

This resource states that “most of the empirical studies conducted on the subject suggest that the amount of time spent on homework is positively related to student achievement. However, this relationship is influenced by such factors as differences in students' grade level. Although statistics concerning the average number of hours spent on homework provide one indication of the role of homework, they do not address the quality of the homework assigned, the degrees to which students actually complete homework, or the effort and care students take in completing it.”

1.4. Expectations and Reports of Homework for Public School Students in the First, Third, and Fifth Grades. National Center for Education Statistics; Dec. 2008; Issue Brief; NCES 2009-033; 4 pages.

Source: Institute of Education Sciences

(<http://nces.ed.gov/pubs2009/2009033.pdf>)

This resource reads on page 1 that “recent meta-analysis by Cooper, Robinson, and Patall (2006) indicated a positive relationship between educational outcomes and homework. However, the strength of the relationship varied by the student's grade level and the frequency of and amount of time allocated to homework.”

1.5. Does Homework Improve Academic Achievement? A Synthesis of Research, 1987–2003.

Cooper, H., Robinson, J. C., and Patall, E. A.; 2006; *Review of Educational Research*, Vol. 76, No. 1, 1-62; DOI: 10.3102/00346543076001001.

Source: General Internet search using Google

Full-Text Available to Download for Free from Sage

(<http://rer.sagepub.com/cgi/content/abstract/76/1/1>)

From the Abstract: “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).”

Organizations and Additional Resources to Consult

- **National Education Association**
(<http://www.nea.org/home/index.html>)

The NEA provides an online review of homework research. To visit the NEA Research Spotlight on Homework, click here: <http://www.nea.org/tools/16938.htm>. The Spotlight on Homework states that: “The National PTA recommendations fall in line with general guidelines suggested by researcher Harris Cooper: 10-20 minutes per night in the first grade, and an additional 10 minutes per grade level thereafter (e.g., 20 minutes for second grade, 120 minutes for twelfth). High school students may sometimes do more, depending on what classes they take.”

- **ASCD (formerly the Association for Supervision and Curriculum Development)**
(<http://www.ascd.org/>)
Founded in 1943, ASCD (formerly the Association for Supervision and Curriculum Development) is an educational leadership organization dedicated to advancing best practices and policies for the success of each learner. ASCD is the publisher of *Educational Leadership*, which frequently publishes studies on homework.

Resources on Homework in General

- **Helping Your Child With Homework** *U.S. Department of Education; 2005; Office of Communications and Outreach; 25 pages.*
Source: U.S. Department of Education
(<http://www.ed.gov/parents/academic/help/homework/homework.pdf>)
This resource reads that “from third through sixth grades, small amounts of homework, gradually increased each year, may support improved school achievement. In seventh grade and beyond, students who complete more homework score better on standardized tests and earn better grades, on the average, than do students who do less homework. The difference in test scores and grades between students who do more homework and those who do less increases as students move up through the grades.”
- **Helping Your Students With Homework: A Guide for Teachers.** Paulu, N.; undated; U.S. Department of Education, Office of Educational Research and Improvement; 31 pages.
Source: U.S. Department of Education
(<http://www.ed.gov/PDFDocs/hyc.pdf>)
This resource for teachers reads that “student achievement rises significantly when teachers regularly assign homework and students conscientiously do it, and the academic benefits increase as children move into the upper grades.”
- **Homework: The Evidence.** *Hallam, S.; 2004; Institute of Education.*
Source: Google Books search
(<http://books.google.com/books?id=FdyYZEMKI3sC>)
From the publisher: “Susan Hallam’s extensive review of the literature on homework covers the history, nature and purpose of homework and reviews research on its effect on pupils’ attainment. She describes the findings of studies that compare homework with no homework, or homework with supervised homework, and international and UK studies looking at the relationships between time spent on homework and attainment.”

Key words and search strings used in the search:

Homework AND student achievement, Homework subjects AND student achievement, Homework AND test scores, Homework subjects and test scores

Search databases and websites:

Institute for Education Science Sites; Regional Educational Laboratory Program (REL); What Works Clearinghouse (WWC); Doing What Works (DWW); National Center for Education Statistics (NCES); Institute for Education Sciences (IES); IES Practice Guides

Additional Data Resources: <http://www.google.com>;

Criteria for inclusion:

When Reference Desk Researchers review resources, they consider, among other things, four factors:

1. **Date of the publication:** The most current information is included unless in the case of nationally known seminal resources
2. **Source and funder of the report/study/brief/article:** Priority is given to IES, nationally funded, and certain other vetted sources known for strict attention to research protocols;
3. **Methodology:** i.e. Random control trial studies, surveys, self-assessments, literature reviews, policy briefs, etc. Priority for inclusion is given generally to random control trial study findings; however, the reader should note at least the following factors when basing decisions on these

resources: Numbers of participants (just a few? Thousands?); Selection (did the participants volunteer in the study, or were they chosen?); Representation (were findings generalized from a homogeneous or a diverse pool of participants? Was the study sample representative of the population as a whole?)

4. **Existing knowledge base:** Although we strive to include vetted resources, there are times when the research base is slim or non-existent. In these cases we have included the best resources we could find, which may include newspaper articles, interviews with content specialists, organization websites, etc.

REL Northeast and Islands

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