



THE CASE
FOR
(QUALITY)
HOMEWORK

WHY IT IMPROVES LEARNING,
AND HOW PARENTS CAN HELP



PHOTOGRAPH / PACO NAVARRO; GETTY IMAGES

ANY PARENT WHO HAS BATTLED with a child over homework night after night has to wonder: Do those math worksheets and book reports really make a difference to a student’s long-term success? Or is homework just a headache—another distraction from family time and downtime, already diminished by the likes of music and dance lessons, sports practices, and part-time jobs?

Allison, a mother of two middle-school girls from an affluent Boston suburb, describes a frenetic afterschool scenario: “My girls do gymnastics a few days a week, so homework happens for my 6th grader after gymnastics, at 6:30 p.m. She doesn’t get to bed until 9. My 8th grader does her homework immediately after school, up until gymnastics. She eats dinner at 9:15 and then goes to bed, unless there is more homework to do, in which case she’ll get to bed around 10.” The girls miss out on sleep, and weeknight family dinners are tough to swing.

Parental concerns about their children’s homework loads are nothing new. Debates over the merits of homework—tasks that teachers ask students to complete during non-instructional time—have ebbed and flowed since the late 19th century, and today its value is again being scrutinized and weighed against possible negative impacts on family life and children’s well-being.

Are American students overburdened with homework? In some middle-class and affluent communities, where pressure on students to achieve can be fierce, yes. But in families of limited means, it’s often another story. Many low-income parents value homework as an important connection to the school and the curriculum—even as their children report receiving little homework. Overall, high-school students relate that they spend less than one hour per day on homework, on average, and only 42 percent say they do it five days per week. In one recent survey by the National Assessment of Educational Progress (NAEP), a minimal 13 percent of 17-year-olds said they had devoted more than two hours to homework the previous evening (see Figure 1).

Recent years have seen an increase in the amount of homework assigned to students in grades K–2, and critics point to research findings that, at the elementary-school level, homework does not appear to enhance children’s learning. Why, then, should we burden

by JANINE BEMPECHAT

young children and their families with homework if there is no academic benefit to doing it? Indeed, perhaps it would be best, as some propose, to eliminate homework altogether, particularly in these early grades.

On the contrary, developmentally appropriate homework plays a critical role in the formation of positive learning beliefs and behaviors, including a belief in one’s academic ability, a deliberative and effortful approach to mastery, and higher expectations and aspirations for one’s future. It can prepare children to confront ever-more-complex tasks, develop resilience in the face of difficulty, and learn to embrace rather than shy away from challenge. In short, homework is a key vehicle through which we can help shape children into mature learners.

The Homework-Achievement Connection

A narrow focus on whether or not homework boosts grades and test scores in the short run thus ignores a broader purpose in education, the development of lifelong, confident learners. Still, the question looms: *does* homework enhance academic success? As the educational psychologist Lyn Corno wrote more than two decades ago, “homework is a complicated thing.” Most research on the homework-achievement connection is correlational, which precludes a definitive judgment on its academic benefits. Researchers rely on correlational research in this area of study given the difficulties of randomly assigning students to homework/no-homework conditions. While correlation does not imply causality, extensive research has established that at the middle- and high-school levels, homework completion is strongly and positively associated with high achievement. Very few studies have reported a negative correlation.

As noted above, findings on the homework-achievement connection at the elementary level are mixed. A small number of experimental studies have demonstrated that elementary-school students who receive homework achieve at higher levels than those who do not. These findings suggest a causal relationship, but they are limited in scope. Within the body of correlational research, some studies report a positive homework-achievement connection, some a negative relationship, and yet others show no relationship at all. Why the mixed findings? Researchers point to a number of possible factors, such as developmental issues related to how young children learn, different goals that teachers have for younger as compared to older students, and how researchers define homework.

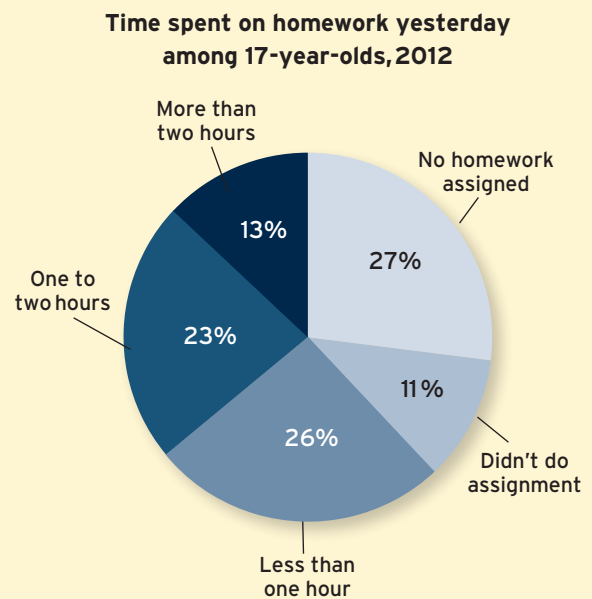
Certainly, young children are still developing skills that enable them to focus on the material at hand and study efficiently. Teachers’ goals for their students are also quite different in elementary school as compared to secondary school. While teachers at both levels note the value of homework for reinforcing classroom content, those in the earlier grades are more likely to assign homework mainly to foster skills such as responsibility, perseverance, and the ability to manage distractions.

Most research examines homework generally. Might a focus on homework in a specific subject shed more light on the homework-achievement connection? A recent meta-analysis did just this by examining the relationship between math/science homework and achievement. Contrary to previous findings, researchers reported a stronger relationship between homework and achievement in the elementary grades than in middle school. As the study authors note, one explanation for this finding could be that in elementary school, teachers tend to assign more homework in math than in other subjects, while at the same time assigning shorter math tasks more frequently. In addition, the authors point out that parents tend to be more involved in younger children’s math homework and more skilled in elementary-level than middle-school math.

In sum, the relationship between homework and academic achievement in the elementary-school years is not yet established, but eliminating homework at this level would do children and their families a huge disservice: we know that children’s learning beliefs have a powerful impact on their academic outcomes, and that through homework, parents and teachers can have a profound influence on the development of positive beliefs.

Most Students Spend Less Than One Hour on Homework Daily (Figure 1)

The total amount of time American students spend on homework is relatively modest, with only about a third of 17-year-olds reporting in 2012 that they spent more than one hour on homework the day before they were surveyed.



SOURCE: U.S. Department of Education, National Center for Education Statistics

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How Much Is Appropriate?

Harris M. Cooper of Duke University, the leading researcher on homework, has examined decades of study on what we know about the relationship between homework and scholastic achievement. He has proposed the “10-minute rule,” suggesting that daily homework be limited to 10 minutes per grade level. Thus, a 1st grader would do 10 minutes each day and a 4th grader, 40 minutes. The National Parent Teacher Association and the National Education Association both endorse this guideline, but it is not clear whether the recommended allotments include time for reading, which most teachers want children to do daily.

For middle-school students, Cooper and colleagues report that 90 minutes per day of homework is optimal for enhancing academic achievement, and for high schoolers, the ideal range is 90 minutes to two and a half hours per day. Beyond this threshold, more homework does not contribute to learning. For students enrolled in demanding Advanced Placement or honors courses, however, homework is likely to require significantly more time, leading to concerns over students’ health and well-being.

Notwithstanding media reports of parents revolting against the practice of homework, the vast majority of parents say they are highly satisfied with their children’s homework loads. The National Household Education Surveys Program recently found that between 70 and 83 percent of parents believed that the amount of homework their children had was “about right,” a result that held true regardless of social class, race/ethnicity, community size, level of education, and whether English was spoken at home.

Learning Beliefs Are Consequential

As noted above, developmentally appropriate homework can help children cultivate positive beliefs about learning. Decades of research have established that these beliefs predict the types of tasks students choose to pursue, their persistence in the face of challenge, and their academic achievement. Broadly, learning beliefs fall under the banner of achievement motivation, which is a constellation of cognitive, behavioral, and affective factors, including: the way a person perceives his or her abilities, goal-setting skills, expectation of success, the value the individual places on learning, and self-regulating behavior such as time-management skills. Positive or adaptive beliefs about learning serve as emotional and psychological protective factors for children, especially when

they encounter difficulties or failure.

Motivation researcher Carol Dweck of Stanford University posits that children with a “growth mindset”—those who believe that ability is malleable—approach learning very differently than those with a “fixed mindset”—kids who believe ability cannot change. Those with a growth mindset view effort as the key to mastery.

They see mistakes as helpful, persist even in the face of failure, prefer challenging over easy tasks, and do better in school than their peers who have a fixed mindset. In contrast, children with a fixed mindset view effort and mistakes as implicit condemnations of their abilities. Such children succumb easily to learned helplessness in the face of difficulty, and they gravitate toward tasks they know they can handle rather than more challenging ones.

Of course, learning beliefs do not develop in a vacuum. Studies have demonstrated that parents and teachers play a significant role in the development of positive beliefs and behaviors, and that homework is a key tool they can use to foster motivation and academic achievement.

Parents’ Beliefs and Actions Matter

It is well established that parental involvement in their children’s education promotes achievement motivation and success in school. Parents are their children’s first teachers, and their achievement-related beliefs have a profound influence on children’s developing perceptions of their own abilities, as well as their views on the value of learning and education.

Parents affect their children’s learning through the messages they send about education, whether by expressing interest in school activities and experiences, attending school events, helping with homework when they can, or exposing children to intellectually enriching experiences. Most parents view such engagement as part and parcel of their role. They also believe that doing homework fosters responsibility and organizational skills, and that doing well on homework tasks contributes to learning, even if children experience frustration from time to time.

Many parents provide support by establishing homework routines, eliminating distractions, communicating expectations, helping children manage their time, providing reassuring messages, and encouraging kids to be aware of the conditions under which they do their best work. These supports help foster the development of self-regulation, which is critical to school success.

Self-regulation involves a number of skills, such as the ability to monitor one’s performance and adjust strategies as a result of feedback; to evaluate one’s interests and realistically perceive one’s aptitude; and to work on a task autonomously. It also means learning how to structure one’s environment so that it’s conducive to learning, by, for example, minimizing distractions. As children move into higher grades, these skills and strategies help them

organize, plan, and learn independently. This is precisely where parents make a demonstrable difference in students' attitudes and approaches to homework.

Especially in the early grades, homework gives parents the opportunity to cultivate beliefs and behaviors that foster efficient study skills and academic resilience. Indeed, across age groups, there is a strong and positive relationship between homework completion and a variety of self-regulatory processes. However, the quality of parental help matters. Sometimes, well-intentioned parents can unwittingly undermine the development of children's positive learning beliefs and their achievement. Parents who maintain a positive outlook on homework and allow their children room to learn and struggle on their own, stepping in judiciously with informational feedback and hints, do their children a much better service than those who seek to control the learning process.

A recent study of 5th and 6th graders' perceptions of their parents' involvement with homework distinguished between supportive and intrusive help. The former included the belief that

Children are more likely to focus on self-improvement during homework time and do better in school when their parents are oriented toward mastery. In contrast, if parents focus on how well children are doing relative to peers, kids tend to adopt learning goals that allow them to avoid challenge.

Homework and Social Class

Social class is another important element in the homework dynamic. What is the homework experience like for families with limited time and resources? And what of affluent families, where resources are plenty but the pressures to succeed are great?

Etta Kralovec and John Buell, authors of *The End of Homework*, maintain that homework "punishes the poor," because lower-income parents may not be as well educated as their affluent counterparts and thus not as well equipped to help with homework. Poorer families also have fewer financial resources to devote to home computers, tutoring, and academic enrichment. The stresses of poverty—and work schedules—may impinge, and immigrant parents may face language barriers and an unfamiliarity with the school system and teachers' expectations.

Yet research shows that low-income parents who are unable to assist with homework are far from passive in their children's learning, and they do help foster scholastic performance. In fact, parental help with homework is *not* a necessary component for school success.

Brown University's Jin Li queried low-income Chinese American 9th graders' perceptions of their parents' engagement with their education. Students said their immigrant parents rarely engaged in activities that are known to foster academic achievement, such as monitoring homework, checking it for accuracy, or attending school meetings or events. Instead, parents of higher achievers built three social networks to support their children's learning. They designated "anchor" helpers both inside and outside the family who provided assistance; identified peer models for their children to emulate; and enlisted

the assistance of extended kin to guide their children's educational socialization. In a related vein, a recent analysis of survey data showed that Asian and Latino 5th graders, relative to native-born peers, were more likely to turn to siblings than parents for homework help.

Further, research demonstrates that low-income parents, recognizing that they lack the time to be in the classroom or participate in school governance, view homework as a critical connection to their children's experiences in school. One study found that mothers enjoyed the routine and predictability of homework and used it as a way to demonstrate to children how



Across children's age groups, there is a strong and positive relationship between homework completion and self-regulatory processes.

parents encouraged the children to try to find the right answer on their own before providing them with assistance, and when the child struggled, attempted to understand the source of the confusion. In contrast, the latter included the perception that parents provided unsolicited help, interfered when the children did their homework, and told them how to complete their assignments. Supportive help predicted higher achievement, while intrusive help was associated with lower achievement.

Parents' attitudes and emotions during homework time can support the development of positive attitudes and approaches in their children, which in turn are predictive of higher achievement.

Parents who maintain a positive outlook on homework and allow their children room to learn and struggle on their own do their children a much better service than those who seek to control the learning process.

to plan their time. Mothers organized homework as a family activity, with siblings doing homework together and older children reading to younger ones. In this way, homework was perceived as a collective practice wherein siblings could model effective habits and learn from one another.

In another recent study, researchers examined mathematics achievement in low-income 8th-grade Asian and Latino students. Help with homework was an advantage their mothers could not provide. They could, however, furnish structure (for example, by setting aside quiet time for homework completion), and it was this structure that most predicted high achievement. As the authors note, “It is . . . important to help [low-income] parents realize that they can still help their children get good grades in mathematics and succeed in school even if they do not know how to provide direct assistance with their child’s mathematics homework.”

The homework narrative at the other end of the socioeconomic continuum is altogether different. Media reports abound with examples of students, mostly in high school, carrying three or more hours of homework per night, a burden that can impair learning, motivation, and well-being. In affluent communities, students often experience intense pressure to cultivate a high-achieving profile that will be attractive to elite colleges. Heavy homework loads have been linked to unhealthy symptoms such as heightened stress, anxiety, physical complaints, and sleep disturbances. Like Allison’s 6th grader mentioned earlier, many students can only tackle their homework after they do extracurricular activities, which are also seen as essential for the college résumé. Not surprisingly, many students in these communities are not deeply engaged in learning; rather, they speak of “doing school,” as Stanford researcher Denise Pope has described, going through the motions necessary to excel, and undermining their physical and mental health in the process.

Fortunately, some national intervention initiatives, such as Challenge Success (co-founded by Pope), are heightening awareness of these problems. Interventions aimed at restoring balance in students’ lives (in part, by reducing homework demands) have resulted in students reporting an increased sense of well-being, decreased stress and anxiety, and perceptions of greater support from teachers, with no decrease in achievement outcomes.

What is good for this small segment of students, however,

is not necessarily good for the majority. As Jessica Lahey wrote in *Motherlode*, a *New York Times* parenting blog, “homework is a red herring” in the national conversation on education. “Some otherwise privileged children may have too much, but the real issue lies in places where there is too little. . . . We shouldn’t forget that.”

My colleagues and I analyzed interviews conducted with lower-income 9th graders (African American, Mexican American, and European American) from two Northern California high schools that at the time were among the lowest-achieving schools in the state. We found that these students consistently described receiving minimal homework—perhaps one or two worksheets or textbook pages, the occasional project, and 30 minutes of reading per night. Math was the only class in which they reported having homework each night. These students noted few consequences for not completing their homework.

Indeed, greatly reducing or eliminating homework would likely increase, not diminish, the achievement gap. As Harris M. Cooper has commented, those choosing to opt their children out of homework are operating from a place of advantage. Children in higher-income families benefit from many privileges, including exposure to a larger range of language at home that may align with the language of school, access to learning and cultural experiences, and many other forms of enrichment, such as tutoring and academic summer camps, all of which may be cost-prohibitive for lower-income families. But for the 21 percent of the school-age population who live in poverty—nearly 11 million students ages 5–17—homework is one tool that can help narrow the achievement gap.

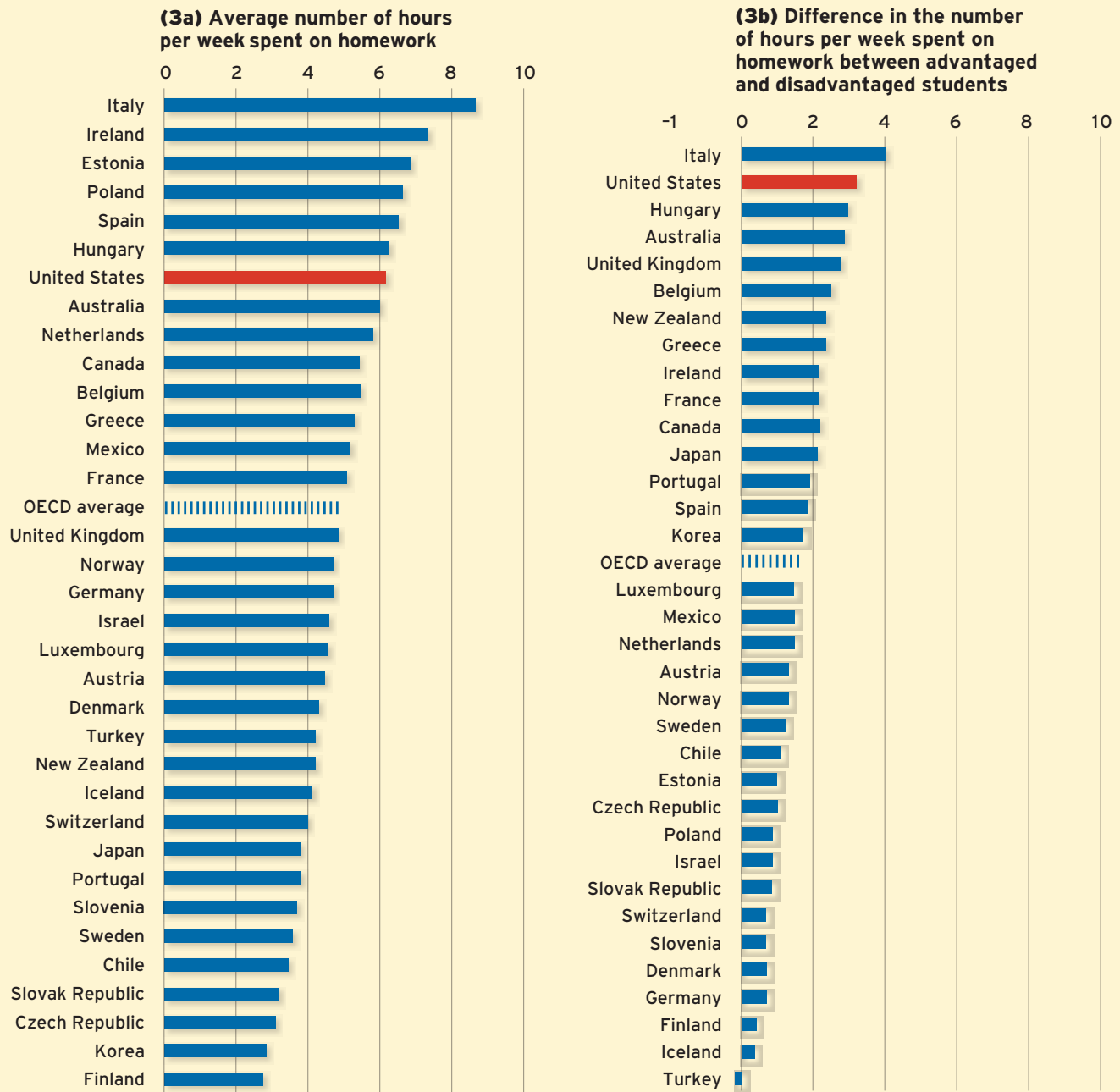
Community and School Support

Often, community organizations and afterschool programs can step up to provide structure and services that students’ need to succeed at homework. For example, Boys and Girls and 4-H clubs offer volunteer tutors as well as access to computer technology that students may not have at home. Many schools provide homework clubs or integrate homework into the afterschool program.

Home-school partnerships have succeeded in engaging parents with homework and significantly improving their children’s academic achievement. For example, Joyce Epstein of Johns Hopkins University has developed the TIPS model (Teachers Involve Parents in Schoolwork), which embraces homework as an integral part of family time. TIPS is a teacher-designed interactive program in which children and a parent or family member each have a specific role in the homework scenario. For example, children might show the parent how to do a mathematics task on fractions, explaining their reasoning along the way

United States Ranks High on Homework Disparities (Figure 2)

On the 2012 Program for International Student Assessment, 15-year-old students in the United States reported spending six hours per week doing homework, more than most other OECD countries. The difference in homework between advantaged and disadvantaged students exceeded three hours weekly, a disparity topped only by Italy.



NOTE: Data are shown for the 34 developed democracies that are members of the Organisation for Economic Co-operation and Development (OECD). Advantaged and disadvantaged students are defined as being in the top and bottom quarter of the Program for International Student Assessment index of economic, social, and cultural status.

SOURCE: Organisation for Economic Co-operation and Development, *PISA in Focus: Does homework perpetuate inequities in education?* 2014 / 12 (December)

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and reviewing their thinking aloud if they are unsure.

Evaluations show that elementary and middle-school students in classrooms that have adopted TIPS complete more of their homework than do students in other classrooms. Both students and parent participants show more positive beliefs about learning mathematics, and TIPS students show significant gains in writing skills and report-card science grades, as well as higher mathematics scores on standardized tests.

Another study found that asking teachers to send text messages to parents about their children’s missing homework resulted in increased parental monitoring of homework, consequences for missed assignments, and greater participation in parent-child conferences. Teachers reported fewer missed assignments and greater student effort in coursework, and math grades and GPA significantly improved.

Homework Quality Matters

Teachers favor homework for a number of reasons. They believe it fosters a sense of responsibility and promotes academic achievement. They note that homework provides valuable review and practice for students while giving teachers feedback on areas where students may need more support. Finally, teachers value homework as a way to keep parents connected to the school and their children’s educational experiences.

While students, to say the least, may not always relish the idea of doing homework, by high school most come to believe there is a positive relationship between doing homework and doing well in school. Both higher and lower achievers lament “busywork” that doesn’t promote learning. They crave high-quality, challenging assignments—and it is this kind of homework that has been associated with higher achievement.

What constitutes high-quality homework? Assignments that are developmentally appropriate and meaningful and that promote self-efficacy and self-regulation. Meaningful homework is authentic, allowing students to engage in solving problems with real-world relevance. More specifically, homework tasks should make efficient use of student time and have a clear purpose connected to what they are learning. An artistic rendition of a period in history that would take hours to complete can become instead a diary entry in the voice of an individual from that era. By allowing a measure of choice and autonomy in homework, teachers foster in their students a sense of ownership, which bolsters their investment in the work.

High-quality homework also fosters students’ perceptions of their own competence by 1) focusing them on tasks they can accomplish without help; 2) differentiating tasks so as to allow struggling students to experience success; 3) providing suggested time frames rather than a fixed period of time in which a task should be completed; 4) delivering clearly and carefully explained directions; and 5) carefully modeling methods for attacking lengthy or complex tasks. Students whose teachers have trained them to adopt strategies such as goal setting, self-monitoring, and planning develop a number of personal assets—improved time management, increased self-efficacy, greater effort and interest, a desire for mastery, and a decrease in helplessness.

Excellence with Equity

Currently, the United States has the second-highest disparity between time spent on homework by students of low socioeconomic status and time spent by their more-affluent peers out of the 34 OECD-member nations participating in the 2012 Program for International Student Assessment (PISA) (see Figure 2). Noting that PISA studies have consistently found that spending more time on math homework strongly correlates with higher academic achievement, the report’s authors suggest that the homework disparity may reflect lower teacher expectations for low-income students. If so, this is truly unfortunate. In and of itself, low socioeconomic status is not an impediment to academic achievement when appropriate parental, school, and community supports are deployed. As research makes clear, low-income parents support their children’s learning in varied ways, not all of which involve direct assistance with schoolwork. Teachers can orient students and parents toward beliefs that foster positive attitudes toward learning. Indeed, where homework is concerned, a commitment to excellence with equity is both worthwhile and attainable.

In affluent communities, parents, teachers, and school districts might consider reexamining the meaning of academic excellence and placing more emphasis on leading a balanced and well-rounded life. The homework debate in the United States has been dominated by concerns over the health and well-being of such advantaged students. As legitimate as these worries are, it’s important to avoid generalizing these children’s experiences to those with fewer family resources. Reducing or eliminating homework, though it may be desirable in some advantaged communities, would deprive poorer children of a crucial and empowering learning experience. It would also eradicate a fertile opportunity to help close the achievement gap.

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