Students sound off on why homework doesn’t work—and how that might change.

Kids spend many of their after-school hours doing what cognitive scientists call deliberate practice in areas like the arts, athletics, and hobbies. So when I set out recently to gather students' perspectives on homework—for a What Kids Can Do project in which youth explored how they develop motivation and mastery—I first asked the teenagers to describe their nonacademic practice activities.

For instance, Jacob, who plays in a basketball league, told me that every time he finishes a game, he makes notes on his mistakes and asks friends where he needs improvement:

Then, when I'm alone, I practice by myself. If I'm bad at free throws, I take 50 free throws. If I'm bad at three-pointers, I take a lot of three-pointers. My stamina is not that good, so I push myself by running in the park every day.

Ideally, kids told me, their homework should serve the same function, targeting areas of weakness and pushing them to reach a new place just within their capability. But when students and I applied their criteria for deliberate practice to homework assignments, homework typically fell short. Deliberate practice has an express purpose and is tailored to the individual; yet too often, students said, teachers issued the same homework to all without making its purpose clear. Deliberate practice involves attention, and any repetition requires focus. Yet students reported that they could do much of their homework without thinking, repeating things by rote without knowing what they meant. Good practice leads to new skills, but kids said that when they finished their homework, they seldom applied any of the requested information.

What would it take to make homework into the kind of deliberate practice that strengthens academic skills and knowledge? For that to happen, the kids and I agreed, students would need to start to think of homework as “getting good” at something—and teachers would need to welcome students' feedback on what best supports their developing mastery. My informants shared suggestions for how homework practices should change.

What's the Purpose?

These students often did not know the point of their homework, which lowered their motivation to do it:

We need homework that is important, that helps us toward a goal we have to meet. The homework that’s given can seem random, like a non sequitur—it has nothing to do with anything. —Claude

Students resented busywork. As Bridget complained, "A lot of these drills are intended to keep kids focused on something and to keep them out of trouble." Kristian objected when her sign language teacher made students copy material from a book on sign language etiquette: "The repetition wasn't helping me use sign language better. If you really want me to learn it, ask me to practice it with someone in real life."

Above all, students believed homework should match skills they needed to work on individually. As Vivian said,

I need help with atomic radius in chemistry, and another girl has a problem with some other topic. But the teacher doesn’t know our weaknesses and what we’re good at. We all learn at different paces, and in different ways, so [teachers should focus] on what we need to learn and how the homework is going to help us.

Students believed one assignment could address many different students' needs if the assignment allowed learning in a variety of ways. Claude held up a multipart project his English teacher designed as a good example:

You can choose an essay, or you can do a poem. And for one part, you do an artistic representation of what you wrote. With more options and more choices, it might open up learning, and wanting to do things, to all students, not just a specific group.

Follow Up!

Students wanted teacher feedback on assignments. When a teacher did not follow up on homework, they felt they were left
hanging. Vivian lamented, "The next day, some teachers barely look at it. You worked so hard to get it done, and they just look and say, 'Oh you did it, fine.'" Without feedback, homework did not seem like deliberate practice:

*I really want the teacher to evaluate it, so I can know what I'm doing wrong. From there, she can go over what we need, and maybe create another homework assignment to explore something that we didn't get.* —Kristian

Unless a teacher intervened, practicing something wrong could be worse than making no effort at all:

*Until you understand what you're doing wrong [in a homework assignment] and how you can change it, you're just going to continually do it wrong and think that you're doing it right.* —Christina

Ideally, teacher and students would share the responsibility of identifying what skills need improvement and making improvement happen through the right kind of practice, as Nicholas's math teacher did. "We investigate the [homework] problems we did as a class, and try to figure out how to get through them," Nicholas explained. "You know why you got the problems wrong. You know what to do about it next time."

**No Grading**

Evaluating homework for diagnostic purposes makes a lot of sense, these teenagers agreed, but grading homework defeats its learning purpose. It isn't fair to make learners worry about getting a low grade on a task they're attempting for the first time:

*It feels like teachers are contradicting themselves when they take off points because you get a homework answer wrong. They're saying: "Stay up, do my homework, and then come back with it all right." That's not practice, that's more like a test that comes at the wrong time!* —Nicholas

Even worse, students perceived that grading homework fosters dishonest or cynical behavior from both teachers and students:

*Some homework is just busywork, to give us more grades. The end of the quarter comes and teachers say, "I don't really have enough grades to put in, so I need you guys to do this worksheet."* —Aaron

*It took me five hours to do this really difficult math homework, and I still didn't understand it, but I was trying my best. Another girl copied it off the Internet— she got 100, and I got a 39. If I ask her, she doesn't understand it. But the teacher doesn't care—she's looking to see if you got it right or wrong.* —Vivian

Students like Erika appreciated teachers who supported risk taking in homework:

*My teacher would give us a worksheet for homework, but he didn't count answers wrong. He gave you credit for trying. I was more willing to try, because I knew that if I got it wrong, he was going to take time to make sure that I understood it.*

Many students got more out of academic practice when they collaborated with others. Small groups might work together on assignments, Aaron suggested, focusing on what each student needed most. "It could either be the people that are bad at one thing all grouped together, or people from varying levels in one group, like if I'm good at pronunciation and someone else was really good at conjugating," he recommended. But arranging a time and space for group homework often proved nearly impossible for students with different commitments and far-flung home locations. Many interviewees said that rather than judging individual homework, schools should devise ways to help kids get the practice they needed, such as an academic support period during the day.

**Better Use of Time**

Kids recognized they needed to do a certain amount of practice that wasn't enjoyable, but they didn't think they learned much when they were exhausted from too much work. Faced with an overload, students like Vivian made nightly choices about which homework to rush through or put aside completely:

*I get home from soccer practice at 7:00, and I really don't feel like doing all that homework. I'm like, "OK, what's more important, math or history?" . . . When I'm doing math homework, I go fast and crazy, and in the end I still don't understand it.*

"It's better to understand what you're doing than to get the homework done," agreed Claude. By assigning less homework, but gearing it toward deeper understanding, he proposed, teachers and students could have it both ways:

**The "Four Rs"**

Ideally, these teens agreed, engaging in additional work after a lesson would be like practicing a sport or a musical instrument. Homework wouldn't ask them to try something they weren't ready for—after all, if they practiced wrong at the start, bad habits could take a long time to undo. Instead, it would add value to lessons through what we decided to call the "four Rs" of
deliberate practice: readiness, repetition, review, and revision. Students shared examples of homework that hit one of these Rs.

To get students ready for a class discussion, for instance, Jacob's English teacher asked students to read a poem carefully:

*When we first read it, many people didn't even know what the poem was about. It was so complicated. But we practiced [at home] breaking it down, stanza by stanza, and then in class it all came together. We looked deep into the meaning of each stanza, and that way people started understanding it.*

Just repeating something did not automatically strengthen crucial learning, students said. They also had to pay attention to what they were repeating, and how. Like hitting a tennis ball again and again over the net, effective homework asked students to practice new skills and knowledge as problems came at them in different ways:

*My economics teacher gave us worksheets every night. I did the graphs so many times, I know them backwards and forwards. With some subjects, you need the repetition to really understand it, to be able to do it any which way.*

—Bridget

Students often had the hardest time engaging when teachers asked them to learn information by heart. Memorization was easier, they said, if they could connect material to something meaningful to them. When Christian had to identify paintings for an art history test, he imagined the paintbrush in his own hand:

*I try to place myself in the period. [I ask myself] "What's the typical thing I would see in the Renaissance time?" I'll see the lineup of the figures, the little things a person would know in that period. I start thinking of paintings I could have done.*

Even while learning new skills, students realized, they also had to keep practicing skills they had learned before. Christina compared meaningful homework to warm-ups in dance:

*Every day, we do the same things at the barre that we've been doing since we were little. Even when you're getting better as a dancer, you still have to keep up that practice. Otherwise it's easy to get lazy about little things, and you can mess up how the dance looks.*

Through out-of-school activities they cared about, students already had experience revising their work. If something wasn't coming out right in a knitting or building project, they were used to going back and trying again. When her teacher made the class revise an essay, Christina said, she thought of it in the same way:

*When I write, I tend to throw in every single little detail that I possibly can. All my essays have so many run-on sentences and sentences that don't even make sense! So I go back [and tell myself] "Maybe I can change this up so it's more relevant to what I'm supposed to be writing about."

### Toward Homework Students Want to Do

The teenagers I interviewed understood the need for sustained practice at the heart of the homework enterprise. And they had creative suggestions about how assignments could be redesigned. Figure 1 (p. 77) presents six student-generated ideas for alternatives to traditional homework.

#### Figure 1. Students Suggest Homework Alternatives

<table>
<thead>
<tr>
<th>In This Learning Situation...</th>
<th>Instead of This</th>
<th>Try This</th>
</tr>
</thead>
<tbody>
<tr>
<td>You introduced new material in class.</td>
<td>Assigning a question set so we will remember the material.</td>
<td>Ask us to think up a homework task that follows up on this material and to explain our choices.</td>
</tr>
<tr>
<td>You want us to read an article before a class discussion.</td>
<td>Making us answer questions that prove we read it.</td>
<td>Ask us to write down two or three questions we have after reading the article.</td>
</tr>
<tr>
<td>You want to see whether we understand a key concept (such as literary irony).</td>
<td>Making us complete a worksheet.</td>
<td>Ask us to demonstrate the concept for the class in small groups, using any medium.</td>
</tr>
<tr>
<td>You want us to see how a math procedure applies in various situations.</td>
<td>Assigning 10 word problems that involve this procedure.</td>
<td>Ask small groups to choose one word problem that applies this procedure in a real-world situation, solve it, and present it to the class.</td>
</tr>
<tr>
<td>You want us to memorize facts</td>
<td>Handing out a list that</td>
<td>Ask each student to share with the class a memorization...</td>
</tr>
</tbody>
</table>
You want us to remember what you taught last month. Assigning a review sheet. Give frequent short pop quizzes about earlier material. Go over each quiz, but don’t count the grade.

Occasionally, my students said, something they did in school energized them to the point that they wanted to go home and keep working on it. Christina and Nicholas remembered a global studies unit on the French Revolution in which students acted out a courtroom trial of King Louis XVI and Queen Marie Antoinette. The project brought even routine homework assignments to life:

“I was the queen. So of course I wanted to do my homework all the time, so I could know the facts of what happened and what didn’t happen. [So] when someone tried to say I did this or that thing, I could say, "Oh no, I didn’t!"” —Christina

When curriculum was framed in involving ways, these students realized that academic subjects could elicit the kind of absorbed attention they gave to favorite activities outside school. With teachers’ help, their practice outside class could be deliberate—aimed at acquiring new knowledge, applying new skills, and creating their best work.

Students Talk About Homework Logistics

- Cooperate with other teachers. Make our total homework load reasonable.
- Give us time to start homework in class so you can help if we have trouble.
- Match homework to the time we have available. Let us know how long you expect us to spend on each assignment, and don’t penalize us if we can’t finish.
- Don’t give homework every day. Having several days to do an assignment helps us learn to manage our time.
- Provide times and places for academic support, such as study halls or hours when a teacher is always available.


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