Defining Your Homework Stance (Part 2)

I had just submitted last month’s column on homework when a colleague approached me, “Michael,” she said, “I need to rethink my approach to homework.” It was as if she had been reading my mind. Here was a veteran teacher I very much respected wrestling with the same questions I posed last month, namely, defining homework and assessing the value of her assignments. This month, I challenge you to further probe your philosophy on homework, and I offer additional tips for examining home assignments.

Would all students benefit from my homework? I used to make chemistry homework compulsory and check it each day in class. While teaching moles and stoichiometry, I quickly learned that students don’t all need to do the same amount of chemistry homework. While some would complete all assigned problems and still struggle with the content, others would master the concept in class, skip the nightly homework, and ace the test. Should I penalize those students for skipping homework when they’re clearly demonstrating mastery of the material? This is a difficult but important question. Think about your own assignments and see if they can be differentiated in some way. Does every student need to do the same assignment?

I also differentiate homework assignments for different classes, as my honors students don’t always benefit from the same assignments as my remedial students. Too often teachers faced with multiple preps and limited time or experience will reuse assignments that may be inappropriate for multiple levels. Begin collecting a variety of homework problems of varying difficulties for each unit you teach. Since you’re probably already differentiating your instruction in the classroom, you’ll also be able to support the homework needs of each student. Try to keep students on both ends of the learning spectrum in mind—you’ll need additional examples for struggling students and challenging extension problems for more advanced students.

Do I review homework efficiently? One of the biggest complaints surrounding homework that I hear from rookie and veteran teachers alike is that reviewing the previous night’s homework takes a significant amount of class time. However, this review is important for cementing student understanding and building skills. As I mentioned last month, providing students with some solved problems on your class website can help. When students can diagnose problems at home, they can approach their homework more meaningfully while saving you valuable class time.

You’ve also likely encountered the enormous time suck of grading homework. There are other ways to check for concept mastery and assignment completion besides collecting each and every assignment. Consider an occasional homework quiz where you pull select problems from the previous night’s assignment. I also like creating homework quizzes on the class Moodle site; Google offers similar tools via Google forms (see “On the web”). Not only do you save time with a self-grading tool, but you can customize the questions and feedback to help guide subsequent instruction and student learning. These have become a popular addition to my classroom in recent years.

What other resources are available to me? At this point, I hope you’re thinking critically about your homework approach. If you’re ready to move beyond stale section review questions, myriad resources are available for new and enhanced assignments. While some textbooks provide good teacher resources, never settle for bad ancillaries. Begin by searching past issues of The Science Teacher for fresh ideas. Solicit feedback from students on your year-end survey: Which assignments supported their learning style in your class? Consult colleagues for suggestions, too. Finally, if you’ve found a strategy or resource that works well for you, share it with others. A homework philosophy is something all teachers struggle with. By refining and sharing your philosophy, you might just help a colleague polish theirs.

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On the web

Google forms: http://support.google.com/drive/bin/answer.py?hl=en&answer=87809
Moodle course management system: https://moodle.org/