High-Quality Homework

Good homework follows in-class instruction and feedback to reinforce and broaden learning.

By Nancy Frey and Douglas Fisher

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Watch the Video!

Watch a teacher introduce a spiral review as homework. www.nassp.org/pl1011fisher.

Discussions about homework are likely to be heated. Great debates can be had about the amount of homework that is appropriate for the age of the learner. Some suggest that teachers should stop assigning homework (Kralovec & Buell, 2001) and others suggest that homework is effective, especially at the secondary level (Cooper, Robinson, & Patall, 2006). Our interest here is not about the quantity of homework, but rather the quality of the homework that is assigned.

First and foremost, homework should be linked to high-quality instruction. This means that homework should come after teachers have modeled the thinking and procedures required for the task or skill. Homework should also come after students have had opportunities for corrective feedback in class through teachers' strategic use of questions, prompts, and cues. And homework should be assigned only after students have had extensive opportunities to practice with their peers in productive group settings so that they can explain their thinking and hear the thinking of others.

Learning on Their Own

The best homework is an opportunity for students to practice something that they know how to do. It's not a good idea for students to try to master new information on their own at home, without peer and teacher support. Unfortunately, data from a MetLife survey indicated that 26% of secondary teachers confessed that they "very often or often" assigned homework because they ran out of time in class (MetLife, 2007). This is especially troubling because it means that the lesson plan called for the teacher or peers to support learning,

yet the expectation changed because of the lack of time. Homework has to be planned and organized to be effective (Vatterott, 2009).

When teachers do give homework on new concepts or on information that students have just been introduced to, even if the topic has been introduced well, students fall into one of four categories.

Completer. This student takes the homework home and does it all. He or she typically has sophisticated family support, perhaps even a paid tutor, who guides the homework completion. When the student submits the homework the next day, the teacher has evidence that the student understood the content and moves to the next topic.

Neglecter. For whatever reason, this student doesn't do the homework. Either he or she is too busy with other activities or doesn't understand the task or information. The student does not learn anything from the homework and the teacher cannot use it to check for understanding, so he or she cannot provide high-quality instruction to this student.

Error-maker. This student attempts to complete the homework but does most of it incorrectly. He or she cares enough to try but clearly does not understand how to do it. Unfortunately, practice does not make perfect—it makes *permanent*. The teacher, confronted with the student's lack of mastery, must decide how to address his or her misunderstanding. If there are enough students in this category, the teacher will likely review the lesson and then try to squeeze the next lesson into a shorter time.

Cheater. This student copies the homework from another person. This may be because the student wants to

please the teacher or because the student wants an easy way out and doesn't see the relationship between practice and mastery of important information. Regardless, the teacher is presented with evidence that the student understands the content and moves on.

In reality, schools and classrooms are filled with a mix of all of these types of students, which likely contributes to the lack of consistent evidence on the effect of homework on student learning (Marzano & Pickering, 2007). If a research study focused on completers, the effect of homework would probably be positive. If the study was conducted with cheaters, however, the impact of homework on achievement would probably be negligible. What educators need to figure out is how to ensure that students understand the homework that they are assigned so that they actually complete it. To change a maxim, only perfect practice makes perfect.
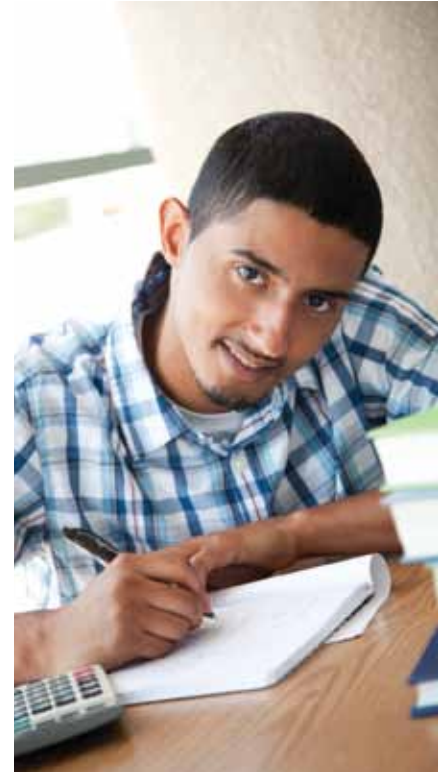
Effective Homework

Thankfully, there are some types of practice that are effective in creating student learning. We have organized them into four general categories: fluency practice, application, spiral review, and extension.

Fluency practice. This type of homework occurs when students practice something that they already know how to do so that they improve. This technique is commonly used in sports and music, but it can be used in other content areas. For example, students can be assigned to read every night from books at their reading level. This builds their reading stamina, background knowledge, and vocabulary. In mathematics, students can be assigned familiar problems. In some cases, teachers ask students to time themselves while doing mental math or when playing a math game.

Application. Another type of effective homework provides students with an opportunity to apply what they already know to a new situation. Importantly, this new situation has to be something familiar enough so that students are not stymied. Having said that, application homework assignments can involve inquiry and investigation, provided that students have the background knowledge and skills to perform the task. For example, science students might be asked to use a familiar principle, such as gravity, to determine whether objects fall at the same speed. History students might be invited to consider alternatives to the record, as was the case when our colleague asked students to write about what would have been different if the Civil War had been fought in 1920.

Spiral review. A third type of homework—one that we believe should be part of every secondary school—is spiral review. Unfortunately, in too many cases, students never return to previous content during the school year and thus schools are doomed to spend weeks reviewing before high-stakes accountability assessments. Instead, the homework can spiral and give students opportunities to practice familiar concepts throughout the year. For example, on a typical week in geometry, students might be asked to complete problems from pages 149, 89, and 33. The video that accompanies this article focuses on a teacher

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who introduces homework to her students. She wants them to write about their thinking as they solve math problems so that she can determine whether they remember the content that was taught as they spiral through the curriculum.

Extension. Finally, homework can be used to extend what students already know. This can be a highly effective and motivating type of homework when done well. In this category, we see a lot of differentiating. When teachers give students opportunities to extend their learning and understanding, they don't have to do the same thing as other students in the class. For example, in a biology class, some students were reading popular press articles about genetics, others were meeting the teacher after school for

Checklist for Developing Effective Homework Assignments

Purpose of Homework	Characteristics	Reflective Questions
Fluency Building	▶ Multiple opportunities for practice ▶ Focuses on one or two skills ▶ Serves as an access point for other skills or knowledge	▶ Do students fully understand how the skill is performed? ▶ Is the difficulty level low enough so that they can focus on speed, rate, and fluency instead of how it is performed?
Application	▶ Allows a skill to be used to solve a problem or apply a rule or principle ▶ Uses previously learned skill for a new situation	▶ What rule or principle will the students use to solve the problem? ▶ Do the students possess the background knowledge and prior experiences necessary to understand the new or novel situation?
Spiral Review	▶ Utilizes previously learned skills or knowledge ▶ Allows students to confirm their understanding and assess their own learning ▶ Related conceptually to current learning	▶ What previously learned skills or knowledge is important for future learning and assessment? ▶ In what ways will this strengthen students' metacognitive awareness of how well they use skills and knowledge? ▶ What previously taught skills or knowledge serve as a basis for current classroom instruction?
Extension	▶ Potential for development of new understandings ▶ Results in a new product or innovation ▶ Requires the use of a variety of skills or knowledge	▶ Does the assignment lead to a new knowledge base or set of concepts? ▶ Will the students create a product or innovation that they have not created before? ▶ What skills or knowledge will students require to complete the assignment?

Source: *Fisher, D., & Frey, N. (2008). Homework and the gradual release of responsibility: Making student "responsibility" possible.* English Journal, 98*(2), 40–45. Used with permission.*

discussions, and still others were doing independent research projects. They were all learning about the same thing, but their teacher understood that differentiation did not have to end with the bell. He provided different groups of students with different opportunities to build their understanding of the topic.

Conclusion

Homework is a very personal topic and one that generates a lot of reaction. As an instructional leader, your role is to guide conversations about quality instruction—and that includes discussions about how students apply their knowledge. How much homework to give and what types of homework are useful are important conversations for teachers to have with their colleagues. Our experience tells us that those conversations won't be easy, but they will change achievement. When students are taught well and then apply that knowledge to independent tasks, learning occurs. And that learning is permanent. **PL**

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