

The Perils of Preteaching

Sometimes the process of learning works best when students are given an opportunity to discover the main concepts for themselves.

By Douglas Fisher and Nancy Frey

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Watch the Video!

Watch as a biology teacher conducts an inquiry lab and explains why preteaching would have compromised the lesson.
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Conventional wisdom suggests that teachers should preteach a lesson's big ideas and key vocabulary before getting to the details. That wisdom is based, in part, on the idea that some content is so complex and so far removed from students' experience that they will have a difficult time learning without specific information provided in advance. This wisdom is also based, in part, on the idea that preteaching (also called "frontloading") is a scaffold for students who struggle with school. For example, it is common for teachers to frontload content for English language learners so that they can participate in classroom activities.

In many cases, preteaching is appropriate. Often it's not. Sometimes, frontloading would take valuable time that could have been devoted to the content at hand. At other times, frontloading removes the thrill of learning, the inquiry into a process, or the imaginative thinking that makes learning relevant. In fact, sometimes the preteaching is really a spoiler, much like ruining a good book or movie by knowing too much of the story before one has read or viewed it.

This is not to suggest that preteaching should be banned; it's not an either/or proposition. Instead, teachers must be aware of the risks as well as the benefits of preteaching to make wise instructional decisions about when and why they can judiciously use it.

When to Avoid Preteaching

Preteaching should be avoided when planning inquiry-based instruction and close reading of a complex text.

INQUIRY-BASED INSTRUCTION

When the lesson involves inquiry,

teachers should be cautious about preteaching because the entire point of the lesson is for students to discover information for themselves through carefully planned experiences. This does not mean that students should be left to their own devices to figure out everything on their own, but rather that there are times when the essential learning requires that students uncover something.

For example, in a US history class, the teacher wanted students to understand the sense of excitement and then rapid loss that investors felt when the stock market peaked and then crashed in 1929. Students were randomly assigned a role, such as wealthy investor, common investor, broker, or banker. They started with an investment portfolio and heard excerpts from the news about the status of the market. The teacher also added options to buy or sell stocks and students tracked their progress, interacting with their role-alike peers. They also participated in a real-time recording of the crash, keeping track of their investments and worth every few minutes.

This simulation would have been ruined with a lot of preteaching. The teacher had previously taught about stocks and bonds and the investment market so that students would understand those aspects of the financial sector, but he did not provide students with advance information about ebbs and flows in the market or information about the end of the 1920s. He wanted them to learn from the process, and they did. As one student said, "It was amazing to watch all my money evaporate. I was doing OK in the market at first, and then, just like that, it was gone. I hope that the government has better rules now so that

doesn't happen to people."

In the video that accompanies this column, a biology teacher engages her students in an inquiry lab and talks about why this lesson would have been compromised with a lot of preteaching.

CLOSE READING OF COMPLEX TEXT

When students must carefully read a piece of text and dig deeply into the meaning, teachers should not preteach content. Like inquiry, the goal of close reading is for students themselves to figure out what is confusing and to identify resources that they can use to address their confusion. It is essential that they develop the metacognition required to understand difficult text. As with inquiry lessons, close reading is in part about discovery—discovering what the author meant and how to come to terms with the ideas in the text.

For example, students were introduced to George Washington's Farewell Address in their humanities class. Consistent with a close reading approach, students read and discussed the text several times, over several days, to develop their understanding of the text and the role it played and continues to play in history. Had their teacher provided a great deal of information in advance of the reading, students might have skipped the reading entirely and focused on what the teacher said. In addition, had the teacher told students what to think about the text through preteaching, the investigative aspect would have been lost and students would not have developed the thinking skills they will need when they encounter complex texts on their own.

Close reading does not apply solely to informational texts. Consider the difference in student learning

between being told about an author's life; his or her reason for writing; and the historical significance of a sonnet, such as "The Long Love" by Thomas Wyatt, and giving students a chance to encounter the text and struggle with the meaning. In the former, students are often told what to think, whereas in the latter, students are guided in their discovery. As the poem was discussed in an 11th-grade classroom, one student said to another, "The lines in this poem that stand out to me are 'And in mine heart doth keep his residence,' and 'And therein campeth, spreading his banner.' These lines stand out to me because they both are examples of how Wyatt uses love as a person, not just a feeling. Using the word *his* to refer to love as someone within him. It's like he's possessed with love."

Later in their discussion, the students were asked to consider the tone of the poem. They had experience analyzing tone, knew what "tone" meant, and were able to apply their knowledge. A student responded, "The tone of the poem, I feel, is consistent because Wyatt talks about love as a thing living within him, within his heart, and throughout the poem that does not change. At the end he even says, 'But in the field with him to live or die?' Wyatt refers to love as his master and will follow him into the field." This close reading left the students changed and likely to use their knowledge in other situations. Too much frontloading, in this case, might have prevented the learning.

When to Preteach

Although there are times when preteaching would not be appropriate, there are times when it is appropriate. In essence, the difference has to



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do with the background knowledge of the students combined with the purpose of the lesson. If a lack of background knowledge will prevent students from accomplishing the purpose of the lesson, frontloading may be necessary, but that need must be balanced with the time allocated for learning the specific content and the skills that students need to develop. This is not to suggest that teachers refrain from scaffolding as students learn, but rather that they carefully consider the amount of information they provide to students in advance of the content under investigation.

To return to the English classroom and its investigation of sonnets, students had been taught about poetic structure, English sonnets, Italian sonnets, theme and tone, imagery and figurative language, and rhyme schemes. Such instructional units are not frontloading because they are components of the standards themselves. In other words, they make up the necessary knowledge that students will

use to understand the poem. Frontloading, in this case, might have been used to discuss Wyatt and his motivations for writing or to preteach some of the tricky words in the poem, such as *presseth* and *doth*. But that would have consumed valuable class time and perhaps prevented students from doing the hard work of figuring out what the author meant. In essence, it would be like telling students the outcome of a lab experiment and then expecting them to want to proceed with the investigation.

The Value of Struggle

Sometimes it's better to let students struggle a bit. We've all heard the adage that you learn from your mistakes, and that's true in the classroom. In mathematics research, it's called "productive failure" (Kapur, 2008), and it is predicated on carefully timing both the failure and the follow-up instruction. For example, using a productive failure mode of instruction, an algebra teacher posed a problem to

her students and then allowed them to work on it and discuss it in small groups. As the students attempted to solve the problem using what they already knew, she listened carefully to their conversations and noted their processes for solving the problem.

Although only one group answered correctly during the first round, the teacher was not distressed. Using their failed attempts as a platform, the teacher tailored her follow-up instruction to address misconceptions that led to students' incorrect answers. She then asked them to solve a conceptually similar problem. The second time, the groups had a much higher success rate, in part because their initial errors helped them focus on what they needed to learn next to be successful.

Conclusion

There are times when preteaching is necessary, especially when there are reasons to believe that the students have gaps in essential background knowledge that would make it unlikely for them to master the new information. But learning is not error-free, and sometimes an educator's job is to provoke those errors and then teach toward rectifying them. The peril of preteaching is that in many cases, it can actually make learning more difficult because the learner hasn't been primed to know the value of the new information. **PL**

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