

Apprenticing Students into a Way of Thinking

Douglas Fisher and Nancy Frey

Three strategies can help students become future-proof problem solvers.

A cross grade levels, teachers work to ensure that students develop their thinking skills. Becoming educated is much more than collecting facts and details. We all hope our students will become thinkers who can work out solutions to the complex problems they will face, problems we may not even have thought of yet. When students become problem solvers, they become future-proof. We see this as much more than future-ready. Future-proof students know how to learn, and they know what they still need to learn. They also know they'll be faced with a variety of challenges and that they'll need to rally resources and figure out ways to meet those challenges. Over time, and with practice, they will become quicker at problem solving to the point that it will become a skill they own and can transfer across time and space. That's when we are rewarded.

But hope isn't a plan. We cannot simply hope that students become problem solvers; we need to offer intentional and targeted instruction that builds their skills. Learners need teachers to guide their strategic thinking—which is much more purposeful, slow, and conscientious than everyday thinking—so that this mode of thinking becomes enshrined as habit.

Preparing for a Prompt

In the video accompanying this column, Nancy engages a group of 10th grade students. From a choice of several books that explore the question of how our social and cultural community or context shape who we are, the students in this group have selected to read *The Absolutely True Diary of a Part-Time Indian* by Sherman Alexie (Little, Brown and Company, 2007). These students have yet to demonstrate their skills in drawing conclusions from texts. In previous lessons, they made guesses or used their personal experiences to respond to questions and engage in discussion on texts. Nancy is concerned that they won't perform well when given a writing prompt (which is a type of problem a student needs to marshal resources for and solve), particularly this upcoming prompt:

How does our social and cultural community or context shape who we are? After reading *The Absolutely True Diary of a Part-Time Indian* by Sherman Alexie, identify one or more themes (big ideas) and provide specific evidence from the text to support your analysis. Remember to apply insight by citing small but important details, and address the complicated issues that Alexie raises in the short story.¹

As you watch Nancy support four students' learning, note the actions of the other students. Some are working on computers, drafting their responses to the writing prompt. Others are reading in their selected books or talking quietly in their book clubs. Nancy works with four students who've all read the same text. Other students are reading this text, but their assessment data indicates that they are drawing conclusions with evidence and don't need the small-group lesson at this time.

Strategic Guidance

Guiding students' thinking requires that teachers be strategic. To ensure that students develop the habits needed to be successful on their own, teachers should refrain from telling students what to think. Direct explanations are problematic and can result in adult-dependent learners who wait on their teachers (and parents, employers, or friends) for an answer. Teachers can use three tools—questions, prompts, and cues—to be sure students are cognitively engaged in their learning.

Questions

When guiding students' thinking, it's important to ask questions that probe knowledge gaps and misunderstandings. Questions help uncover students' thinking, and sometimes that thinking has gone astray. Questions about content should be followed up with ones that probe beneath a student's answer. In other words, guiding students' thinking cannot be solely based on elicitation questions drawing on information you've already taught.

Strategic teachers often ask an elaboration question, as you see Nancy do with students in the video. Such questions invite students to share their reasoning, which can focus their attention on considering a range of possibilities as they respond. Elaboration questions can be generic ("Why do you think so?") or more specific ("What do you think motivated the character to act that way?"). The point of asking an elaboration question is to identify reasons for students' thinking. If their reasons don't flow logically, they may need prompting or cueing to reconsider their response.

Clarifying questions are also useful in uncovering thinking. These questions—queries like, "Where did you find that?" or "What evidence did the author provide that would support your claim?"—invite students to provide an example or evidence. It's also useful for students to ask one another these types of questions as they learn to think about their reasons and explanations; this helps them solve problems when their teachers aren't around.

Prompts and Cues

When an answer to a question reveals confusion, an error, or a misconception, teachers should avoid providing direct explanations. Instead, use prompting and cueing to guide thinking.

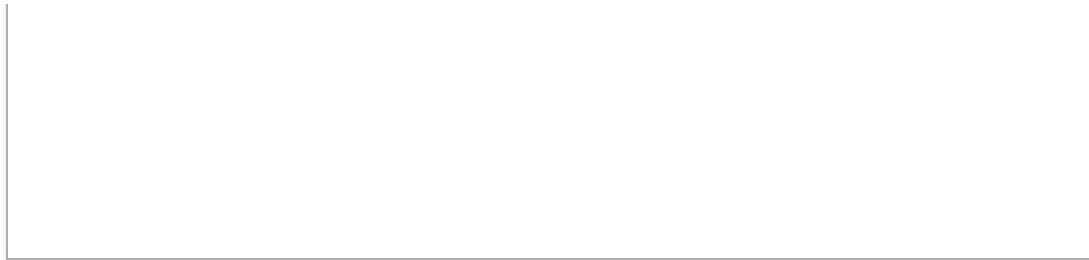
Prompts are designed to get something happening in the learner's mind. Sometimes prompts draw on background knowledge ("Remember when we talked about ... "); other times, they involve processes or procedures learners have been taught ("There's something we usually do when there's a word we don't recognize"). Prompts can also be reflective (for example, "Is that making sense?" or "Have you considered an alternative?").

Teachers can also use cues to guide their students' thinking. Cues are more direct than prompts. They generally shift a learner's attention and include a range of strategies such as verbal, gestural, physical, visual, and environmental cues. As you watch Nancy interact with the four students, you'll see her use a number of cues. She cues them to specific passages in the text, changes her voice to emphasize specific parts, and gestures to help them notice ideas and information.

These three strategies—questions, prompts, and cues—help teachers catalyze students' strategic thinking. A one-time lesson isn't going to ensure that students develop the habits necessary to become problem solvers, but multiple interactions like these will build the skills necessary for students to assume greater responsibility for their learning. Imagine students having 100 or so lessons like this with Nancy—those learners almost can't help but become text analyzers and problem solvers. They will soon integrate evidence into their discussion and writing. They'll use various approaches to arrive at a solution, and be able to defend it. They'll learn to value the perspective of others as they analyze problems and work out ways to address them. These students are being apprenticed into a way of thinking, but not told what to think. There's a big difference. That's how problem solvers are created: one interaction at a time.

Watch the Video

Watch Nancy Frey use questions, prompts, and cues to help students think strategically.



Endnote

¹ The opening question of this prompt, which all students in this classroom will eventually be posed, is based on the essential question that's the focus of the class. Details in the rest of the prompt vary based on the book each student selected.

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