6

ENRICHING CLASSROOM DISCOURSE

Planning for and Asking Strategic Questions

> More effort has to be spent in framing questions that are worth asking: that is, questions that are critical to the development of student understanding.
>
> —Paul Black, Christine Harrison, Clare Lee, Bethan Marshall, & Dylan Wiliam, *Assessment for Learning: Putting It into Practice* (2003)

Consider this: An average teacher asks 400 questions each day, roughly 70,000 questions each year, or 2 to 3 million questions over a teaching career. That means teachers spend a third of their time asking questions. Yet most of the questions teachers pose are answered in less than a second—the average time teachers wait before accepting an answer, calling on someone else, or answering the question themselves (Hastings, 2003).

Sadly, in most schools teachers still dominate classroom talk, relying on a traditional initiate-respond-evaluate (IRE) structure for classroom discourse. The IRE structure creates an imbalance of power in which teachers are the only ones who initiate classroom talk, share information, ask questions, and give directions. And to the detriment of all that occurs in that classroom, the IRE format sends the loud and clear message that

- All interactions are teacher initiated.
- Students speak *only* when invited by the teacher.

- The teacher decides what knowledge is valuable (Cazden, 2001).
- The teacher determines the pace the lesson should follow (Dillon, 1988).
- Student responses are either right or wrong.

Embedded in the IRE structure, teachers rapidly move from one question to the next, rarely providing the kind of formative feedback that helps students assess the gap between where they are and where they need to be to reach the lesson's learning target.

In this chapter we examine the role teacher questions play in the formative assessment process. We also explore how strategic teacher questioning can promote meaningful classroom conversations.

What Is Strategic Teacher Questioning?

Strategic teacher questions—questions that promote formative discourse—share three characteristics: (1) they are planned for, (2) they help students harness the workings of their own minds, and (3) they use appropriate "wait time" to increase student accountability and the complexity of student responses. These skillful questions focus students' attention on content and concepts that are critical to the learning targets, build logically and directly on students' prior knowledge, stimulate students' reasoning in ways that help them formulate personal responses, and result in learning that is richer, deeper, and more integrated (Dillon, 1988; Walsh & Sattes, 2015).

Led by a skillful teacher employing strategic questioning, formative classroom discourse—whether it lasts five minutes or spans an entire class period—can provide a "safe place" where students can self-assess. During formative discussions, strategic questions can both "assist and assess student learning" (Cazden, 2001, p. 92). These skillful questions foster active student engagement with important concepts, content, and reasoning processes in the context of specific subject matter. And when teachers use effective questioning, they continuously direct students' focus to important learning targets and success criteria, helping them to assess where they are, where they want to be, and what they have to do to get there.

When teachers plan for and ask strategic questions, they begin to systematically examine their classroom questioning patterns. Many teachers are unaware of

the questioning ruts that influence what happens in their classrooms. Formative assessment not only can make those ruts visible but also can give teachers practical strategies for escaping them in order to raise the quality of the questions they ask and ensure equitable opportunities for all students to engage in meaningful discussion.

How Does Strategic Teacher Questioning Affect Student Learning and Achievement?

Teacher questioning is still the most common form of interaction between the student and the teacher in virtually every type of lesson across grade levels. Raising the quality of teacher questioning, therefore, can result in rapid and positive changes in the classroom that have a powerful effect on student learning and achievement (Clarke, 2005). Strategic teacher questions scaffold student learning and pull cognitive development. We can use the three characteristics of strategic teacher questioning (they are planned for, they help students harness the workings of their own minds, and they use appropriate wait time to increase student accountability and the complexity of student responses) to examine its effect on student learning.

Questions That Are Planned

Using strong evidence of student learning gathered day to day and minute by minute during the formative assessment process, classroom teachers take time to frame strategic questions that promote increasingly sophisticated conceptual understandings of the important content and reasoning processes tied to the lesson's learning targets. In their planning, teachers design questions that focus student attention on just-right next steps to take in thinking critically about the lesson's content. These questions tend to be "open" rather than "closed" and require responses that demonstrate the student's ability to think beyond factual recall or literal paraphrasing of content (see Figure 6.1).

Questions That Help Students Harness the Workings of Their Own Minds

Strategic teacher questioning, when done effectively, provides a medium for assessing learning that is immediate and accessible for both teachers and

FIGURE 6.1
Closed Versus Open Questions

Closed Questions	Open Questions
• Imply there is only one predetermined "correct" answer. *What is the capital of Pennsylvania?*	• Invite a range of responses and make progressive demands on student thinking. *As you think about the state of Pennsylvania, why do you suppose its founders chose to locate the state capital in Harrisburg?*
• Almost always ask students to recall facts or to demonstrate simple comprehension. *What is a ratio?*	• Encourage students to think beyond the isolated facts to authentic and relevant uses of concepts. *Using the number of males and females in our class, how many ratios can you write?*
• Are designed to determine whether the student knows, understands, or can do a predetermined thing. *Can you name something that dissolves?*	• Are designed to increase and gauge the quality of what students know, understand, and can do as they make progress toward the learning target. *What rules about physical changes can we come up with to help us determine if something has melted or dissolved?*

their students. When teachers frame and ask high-quality questions during formative discourse, they prompt students to inspect their existing knowledge and experience to create new understanding. And as teachers ask strategic questions, they model for their students how experienced learners seek clarity and, in doing so, scaffold their students in refining their abilities to self-assess and self-regulate.

Because many competencies take time to develop, students benefit from engaging in conversations that help them become aware of any gaps between their current competency levels and those required to reach the learning target. These benefits are not available to students who think and reason in isolation. Without exposure to formative discourse focused by strategic teacher questioning, many

students mistakenly believe they have mastered certain concepts or reasoning processes, when in reality there are gaps between where they are and where they need to be. Thinking with others during focused formative discussions creates the potential for students to become much more aware of their actual level of knowledge so they can intentionally work toward developing more sophisticated conceptual understandings of important ideas and relationships connected to targeted content and reasoning processes.

Here are some examples of strategic questions that prompt students to self-assess, to set goals, and to self-regulate during formative discourse:

- How did you arrive at your conclusion about ways to save electricity in our school? Talk about what you did so that we can all check our thinking.
- What steps did you take to create a set of interview questions to ask Mr. Gabriel about why he decided to become a school superintendent? Did anyone use a different set of steps to come up with their interview questions?
- How did you decide how much time to plan for editing your essay before you handed it in? How will your decision help you reach your goals for your essay?
- As you observed the thermometer that we inserted into the mitten, what did you learn about the ways we currently misuse the terms *heat* and *temperature*?
- When you were trying to predict the probability of finding more red candies in your bag of candy than other colors, how did your understanding of fractions help you to make your predictions?
- What strategies did you use in putting together your leaf book that helped you to keep organized? If you had to do it again, what would you do differently? What would you do in the same way, and why?
- The idea that you just shared about the role that slaves played in the economy of the South is important, but general. Can you be more specific?

Questions That Use Appropriate Wait Time

Strategic teacher questions use appropriate wait time to increase student accountability and raise the complexity of student responses. It takes time to think. Yet in her research, Mary Budd Rowe (1974) discovered that "wait time"—the period

of silence that follows teacher questions and students' completed responses—rarely lasted more than one and a half seconds in typical classrooms, regardless of grade level or content area. Encouraging teachers to extend wait time beyond the one and a half seconds that is currently the norm in most classrooms is a strategy that appears too simple to have a significant effect on student learning and achievement. However, when teachers wait in silence for three or more seconds after they pose an open, higher-order question, and after a student responds, many positive things happen for students and teachers (Rowe, 1986; Stahl, 1994; Tobin, 1987).

When students receive three or more seconds of undisturbed wait time and get used to higher expectations for their responses,

- Their responses increase in length and correctness.
- They give fewer "I don't know" and no-answer responses.
- Their self-efficacy increases.
- More students volunteer and give appropriate answers.
- More students challenge, expand upon, or add to the responses of other students.
- They offer an increased number of alternative responses.
- The amount of student-to-student questioning increases.
- Their scores on academic achievement tests improve.

When teachers wait patiently in silence for three or more seconds after asking a question or hearing a student's response,

- Their questioning strategies tend to be more flexible and varied.
- They decrease the number of low-level, closed questions they ask.
- They increase the quality and variety of higher-order, open questions they ask.
- They ask additional questions that require more thinking and reasoning.
- They more accurately gauge where their students are in relation to learning targets.
- They ask questions that focus on the logical next step students need to take to deepen understanding.

We explore specific wait-time strategies later in this chapter. Teachers can use these after posing a strategic question to help students learn to think and reason

with their classmates. When students talk with their peers about ideas, learning targets, and classroom work, they are engaging in conversations that are formative and fundamental to learning. Signaling to students that they should wait, think, and discuss before they volunteer a response promotes more talk that is productive and directly related to the content and reasoning processes students are learning. During these discussions, teachers guide their students to focus on the subject matter, to use accurate facts and sources of information that are appropriate to the conversation's focus, to weigh and consider what their classmates have to say (Fisher & Frey, 2007), to challenge misconceptions and inaccuracies, and to be prepared to supply evidence for any claims they will make in their responses. In other words, formative discussions led by strategic questioning and supported by appropriate wait time go a long way toward promoting "accountable talk"—formative conversations that hold students accountable to one another, accountable for getting their facts and evidence right, and accountable for using rigorous thinking (Michaels, O'Conner, Hall, & Resnick, 2002).

What Common Misconceptions Might Teachers Hold About Strategic Questioning?

Teachers commonly hold three misconceptions about strategic questioning.

Misconception #1: The primary purpose for questioning students is to evaluate what they have learned. Teachers routinely think of questioning as a vehicle for establishing what students already know. During the formative assessment process, strategic questions do more than audit learning; they engage students in the kinds of thinking that further their learning. Questions that merely audit learning do not inform the learning or engage students in thinking and goal setting.

Strategic talking points school leaders can use to address this misconception include the following:

- Strategic questions help students think in new ways and further their learning.
- Strategic questions help students self-assess, set goals, and self-regulate.
- Strategic questions require responses that make student thinking visible and available for consideration and comment by both teachers and peers.

Misconception #2: Asking good questions is something teachers can do naturally, "on the fly." Teachers assume that they routinely ask their students high-quality questions, and they see little need to plan for and frame strategic questions as a consistent part of their instructional preparation. In reality, questioning skills are rarely developed without intention, and good questions are rarely asked on the fly without purposeful planning. And although any teacher can ask a great question once in a while, the power of strategic questioning in the formative assessment process comes from tightly linking questions to the learning targets and success criteria and framing them in ways that help students become accountable for contributing to meaningful conversations about important content.

Strategic talking points school leaders can use to address this misconception include the following:

- Strategic questioning is a skill that takes planning and careful teacher observation to develop over time.
- Strategic questions are carefully planned to connect to the specific learning targets in ways that inform student learning.

Misconception #3: Quality, formative discussions are the rule of thumb rather than the exception to the rule in the classroom. Research reveals that teachers routinely overestimate the quality of their classroom discourse. High-quality discussions that advance student learning rarely occur in elementary and secondary classrooms, happening only 4 percent to 8 percent of the time (Dillon, 1984). In other words, more than 90 percent of the time, teachers are not leading the kinds of formative discussions that can raise student achievement and help students learn how to learn. A more recent study of a formative assessment intervention that asked teachers specifically to ask "why" questions and have students provide explanations for their thinking found that for the most part, teachers in five of the six classrooms did not ask students to explain their thinking (Furtak et al., 2008).

Strategic talking points school leaders can use to address this misconception include the following:

- High-quality discussions occur infrequently and should be a goal for all teachers.
- Teachers can promote student learning and achievement by focusing their energies on developing formative discussion strategies.

What Is the Motivation Connection?

When teachers frame questions in ways that advance learning, increase student participation, and help students gauge where they are in relation to the learning target, they give students important opportunities to increase self-efficacy, regulate their own learning, and attribute their successes to the learning strategies they use and the amount of effort they put into the learning task. And because strategic questioning involves the use of appropriate wait time, it increases students' confidence in their ability to respond in meaningful ways (Rowe, 2003).

Teachers who plan for and ask strategic questions also increase their own ability to listen to what their students are saying rather than listening for the answers they expect. In this way, they can continue to improve their own questioning skills by varying the kinds of questions they ask, making sure all students feel accountable and confident enough to respond, and helping students learn from one another's thinking. It is difficult to consistently monitor students' learning while responding to students and keeping focused on the learning targets of the lesson. When teachers plan their questions rather than improvise them, they promote classroom discussions that are focused and formative and that actively engage their students in learning how to learn.

What Specific Strategies Can I Share with Teachers?

Four strategies that can help teachers to become aware of and improve their use of strategic questioning are (1) taking a questioning snapshot, (2) developing skill at creating open questions, (3) using appropriate wait time, and (4) following strategic questions with planned thinking extenders.

Taking a Questioning Snapshot

Ask teachers to choose a lesson that will involve whole-class questioning during a discussion. Ask them to pair with a partner teacher who can observe the lesson or to use a recording device to capture the lesson so they can self-assess. Provide them with the sheet titled "Taking a Questioning Snapshot" (Figure 6.2) to aid them in revealing their questioning patterns, assessing their effectiveness, and setting goals for improvement.

FIGURE 6.2
Taking a Questioning Snapshot

Questioning Pattern	Implications for Student Learning
I talk most of the time without asking a question, or I ask few questions that actually require an answer.	When you monopolize classroom talk with questions that do not require thoughtful responses (e.g., "Is everyone with me?"), you do not encourage students to think, share opinions, or self-assess.
I ask too many questions, too quickly.	When you employ a quick-fire delivery and bombard your students with questions, their responses tend to be knee-jerk reactions connected to shallow thinking. Asking low-level questions in quick succession does not compel students to think and reason.
I ask too many simple yes/no or agree/disagree questions.	Students have a 50-50 chance of answering correctly without paying attention, and they know it. Simple binary-choice questions do not hold learners accountable for producing, explaining, or justifying a thoughtful response.
I only call on students who raise their hands or volunteer.	Students learn quickly that when they do not raise their hands, the teacher does not hold them responsible for responding. An all-volunteer pattern ensures that many students will mentally disengage from the discussion.
I call on a student by name before I ask my question.	Once students realize they are not required to respond, they "check out." Instead, ask a good strategic question, give all students a chance to think, and then use a random-selection method (e.g., picking names out of a hat) to increase student engagement and accountability.
If a student cannot answer a question immediately, I call on another student to respond to the question.	By not giving students adequate wait time, you deny them the opportunity to plan a thoughtful response, and you send a message that correct responses are quick and short. You make it clear that certain students are incapable of effective responses and encourage perceptions of low self-efficacy.

(continued)

FIGURE 6.2
Taking a Questioning Snapshot *(cont.)*

Questioning Pattern	Implications for Student Learning
I do not discuss or analyze incorrect or partially correct responses.	When you fail to examine and discuss misconceptions, partial responses, or inaccurate responses, you lose opportunities to clarify important content, increase conceptual change, and provide high-quality formative feedback to help students self-assess.
I ask questions that are off target or that do not promote critical thinking about important concepts and ideas.	Asking questions that are unrelated to the learning target dilutes the discussion and confuses student thinking. Asking low-level, closed questions does little to advance analytical reasoning and the problem-solving skills necessary for academic success.
I am the only one asking questions.	If students are not asking questions—of you and of one another—they do not view learning as a process of getting one's questions answered and are not using the discussion to speculate, reason, form a hypothesis, or seek clarity.

Developing Skill at Creating Open Questions

Open questions allow for multiple answers, as shown in Figure 6.1. Whereas students' responses to closed questions reveal only whether they can produce a correct answer, students' responses to open questions reveal their thinking. Open questions also allow multiple entry points to the learning. Students who have different prior experiences with a concept and are at various levels of readiness can all respond to open questions.

That said, not all open questions are equally valuable for learning or for providing formative assessment evidence of student thinking about a learning target. The most effective open questions focus on the target and its success criteria. For example, say a 4th grade class is reading a story about a dog, with the theme of "obedience." The open question "Who can tell me about his or her dog?"

might be a fun warm-up, but the question "What do you think of when you hear the word *obedience*?" will prompt more learning-focused discussion.

Effective open questions require student thinking that helps them along the journey toward their learning target, using the success criteria. The quality of the questions makes a big difference (Walsh & Sattes, 2015). Small (2017), for example, lists some strategies that can be used for converting closed questions to open ones in mathematics. One of those strategies—asking for similarities and differences—can be used in many different subject areas. The teacher's selection of the two entities to compare and contrast is key, however. If students are learning that they can infer character traits in fictional stories by paying attention to what a character says and does, then a question asking about similarities and differences between two characters will readily produce evidence of how students are thinking in this regard. By contrast, a question asking about similarities and differences between this story and the previous one read, while an open question, will be less productive for learning.

Effective open questions can harness the power of problem solving by opening up one or more aspects of a problem to student choice. For example, if students are studying addition, instead of always asking questions like "If you have nine cookies and I have three, how many do we have together?" you could ask, "How many different ways can you think of to make 12?" In a language arts class studying plot, you might ask, "What is another way this story could end while remaining true to the characters and theme?" In a science class studying experimental design, you might ask, "A food lab is comparing the popping effectiveness of two different strains of corn. They want to know which variety leaves the fewest unpopped kernels. How many different things can you think of that would need to be controlled before the lab actually popped some corn samples and compared them?"

Or you might use the "fictional student" technique:

> Two students disagreed about whether air is a natural resource. Brianna said it is, because it is a material found in nature and useful to people. Tony said it isn't, because air isn't a material that you can collect or move around; you just use the air around you. Can you think of any more arguments for Brianna's or Tony's point of view? (Brookhart, 2014, p. 58)

In all cases, the most important criterion for the quality of your open question—other than, of course, that it is an open question in the first place—is

that the thinking students need to do to answer the question simultaneously produces evidence of their current understanding and propels them toward the learning target.

Using Appropriate Wait Time

There are three straightforward strategies you can encourage teachers to use that introduce appropriate wait time to their classroom discussions. First, teachers can adopt the *Thinking Time, No Hands Up* strategy. To do this, the teacher explains that she is going to ask a question that will require thinking time in order for students to come up with effective responses. She tells her students that during thinking time, a "no hands up" rule will be in effect. Then the teacher poses a meaty, higher-order question and asks her students to consider it carefully and write down what they are thinking. Then she uses a random-selection method to call on several students to share their prepared responses.

A second strategy is called *Pair Thinking, No Hands Up.* To use this strategy, the teacher assigns, or students choose, a thinking buddy or partner. The teacher asks a good, open, high-level question. The students think with their partners for three to five minutes, making notes about what they considered and the conclusions they reached. Then the teacher uses a random-selection method to call on several thinking pairs to share their jointly created responses.

Finally, teachers can use *Square Thinking, No Hands Up.* To start, the teacher assigns, or students choose, a thinking partner. The teacher asks a strategic question. Students think in pairs for three to five minutes and then join another pair to form a four-student thinking square. The thinking squares have three to five minutes to share their thoughts before the teacher randomly calls on several thinking squares to unpack their thinking and their conclusions for the class.

Following Strategic Questions with Planned Thinking Extenders

Once an effective open question is in play in the classroom, don't shortchange the learning by stopping after one student answer. Use follow-up questions and other productive talk moves (Michaels, Shouse, & Schweingruber, 2008) that function as open question extenders and prompts for other students to expand and extend the discussion. Strategic teacher questioning gets students thinking and

engages them in formative discussions. The power of the questions is multiplied when teachers plan for and use strategies to extend thinking, deepen the conversation, and keep the discussion moving. More specifically, here are some of the various purposes thinking extenders may have and examples of what a teacher might say in each case:

- Inviting students to elaborate and offer more information
  - Ophelia, please tell us a little more about that.
  - Now that you have heard Rachael's ideas, what are you thinking?
  - Do you agree or disagree with Amanda's idea? Why?
  - Thinking about what Nicholas had to say, it might be useful if we knew more about ____.
- Checking for student understanding
  - Ricky, can you repeat Arthur's argument in your own words?
- Revoicing a student's point to see if the student agrees, with an opportunity for the student to respond
  - So you're saying that the cork will float because it's lighter than the water, right?
- Inviting students to explain their reasoning
  - Carla, can you tell us why you think that?
  - What evidence helped you come to that conclusion?
  - Say more about that.
- Encouraging further questioning and speculation
  - I wonder what might happen if ____.
  - What Mackenzie said makes me curious about ____.
- Affirming useful ideas, processes, or concepts contained in a response
  - I especially liked Tristan's ideas about ____ because ____.
  - I think Lily used a great strategy for ____ because ____.
- Modeling how to summarize
  - Ryan seems to be saying that ____.
  - Nicole, is it fair to say that you conclude that ____?
- Reflecting on the use of a certain strategy or process
  - This time we thought about ____. Maybe the next time we approach something like this we could ____.

We know some teachers who have given students the power to extend without prompting by teaching them a response strategy and encouraging its use for every classroom discussion. Whenever a student answers an open question, students in these classes know they have three choices: agree, disagree, or add on. They have learned to respond with which tactic they are choosing ("I would like to add on to what Michelle said . . ."). This saves the teachers from having to insert themselves quite as much into the discussion, and it gives students a structured way to respond, which scaffolds more students into the discussion.

Teachers can also use nonverbal cues—making eye contact, nodding, raising their eyebrows, smiling—to invite students to enter the discussion, to encourage extended or alternative responses, or to challenge or to express surprise.

How Will I Recognize Strategic Teacher Questioning When I See It?

There are several ways to identify when teachers are using strategic questioning:

- Look for high levels of student engagement in class discussions.
- Listen for responses that are thoughtful and more fully developed.
- Notice teachers' use of specific strategies to ensure appropriate wait time.
- Expect to see teachers using follow-up strategies that extend thinking and keep discussions moving.
- Look for evidence of question design and framing in lesson plans.
- Listen for questions that are directly related to the lesson's learning target and success criteria.
- Listen for questions that focus student attention on important concepts and processes.
- Listen for questions that encourage students to self-assess.
- Listen for questions that encourage students to comment or elaborate on another student's response.

How Can I Model Strategic Questioning in My Conversations with Teachers About Their Own Professional Learning?

Many school leaders fall into all-too-common questioning ruts when they lead faculty meetings and teacher professional development days. To make sure

professional conversations have the intended outcomes, school leaders should take the time to plan for and frame strategic questions. Like classroom teachers, leaders often overestimate the quality of the discussions that actually occur in a meeting. Strategic questions can make the difference between discourse that is superficial or off topic and lively conversations that are organized, focused, and outcome-driven.

To begin, plan and precisely state the professional targets for your meeting. You can use the information in Chapter 2 to guide you. Once you have your targets, plan questions that focus like a laser beam on engaging teachers in a critical discussion of the themes and concepts that are essential to your targets. Then frame the questions in clear professional language, keep them open, and draft a few follow-up strategies that you will use to keep the conversation moving in the right direction. Powerful questions not only frame strategic conversations with teachers; they also generate curiosity, surface underlying assumptions, and stimulate thought-provoking generative dialogue. The checklist and illustrative examples in Figure 6.3 can help you plan strategic questions for discussions with individual teachers, small groups, or your entire faculty.

You can make the conversation more equitable and help teachers to be more accountable for sustaining the discussion by coming up with a plan for eliciting responses from all teachers. Trust us, they will thank you. Who has not sat through seemingly endless faculty meetings that were dominated by the same few outspoken people or that rambled along without a clear purpose in sight? By planning for and using strategies that direct teachers to think and prepare their thoughts before the discussion, you are signaling to all who attend that you expect to hear from everyone and you expect responses to be thoughtful and on topic. You can communicate this message even more strongly if you use structured activities or random-selection strategies to invite responses. For example, you can use a pair-share strategy to gain structured input. To get started, put people in pairs, pose a question, have pairs prepare a response, and then ask each pair to share their thoughts, including what they considered as they grappled with the question. During the meeting, change the pairings often to keep the dynamics fresh. You can also use a random-selection process by simply putting names on slips of paper. Pose your question and give people time to prepare a thoughtful response. Then draw names at random to respond. With either strategy, if you run out of time to share responses, you can easily collect everyone's written thoughts.

FIGURE 6.3

Leading Discussions with Focus Questions and Conversation Extenders

Action Step	Example/ Explanation	Focus Questions	Follow-Up Extenders
1. State the focus of the meeting as a learning target.	• All participants will be able to describe the benefits of formative assessment.	• *What are some observations you've made this week regarding the use of formative assessment in your classroom?*	• *Please share more about that . . .* • *Who can share a similar observation?* • *I imagine some of you can describe a different observation.*
2. Identify the two or three most essential concepts related to your target.	• Formative assessment happens when teachers enter into learning partnerships with their students. • Formative assessment must happen minute by minute and day to day in the classroom.	• *As you think about the ways you are interacting with your students, what new working assumptions seem to be guiding those interactions?* • *What opportunities can you see for us to consistently and intentionally embed formative assessment into the daily heartbeat of our classrooms?*	• *What's taking shape? What are you hearing underneath the variety of opinions being expressed?* • *What's the next level of thinking we need to do to help us become even more consistent and more effective?*
3. Plan one or two questions that will help teachers make important connections or deepen their insights.	• The purpose of strategic questioning is to help generate more questions and out-of-the-box thinking.	• *What did we discuss today that surprised you?* • *What seems to be missing? What points didn't we make or discuss that we should address before we close our discussion?*	• *Tell us more about why you find this so surprising in light of our goals surrounding formative assessment.* • *Why is this so crucial to our progress? What might we risk if we don't address it?*
4. Plan a question that will propel thinking and help teachers envision the conversation points for the next meeting.	• You can use strategic questioning to create new boxes outside of which to think.	• *What unique contributions could each of us make to our collective and individual professional growth surrounding formative assessment?*	• *Considering that idea, what support would you need? What support could you give?*

You will be surprised at the difference various questioning and random-selection strategies can make in leading and sustaining a meaningful discussion.

What If?

Strategic teacher questions have the power to advance learning, increase student engagement, and help learners assess where they are in relation to the learning target. *What if you have a teacher or group of teachers who are reluctant to break from traditional teaching structures to engage their students in more classroom discourse?* As you approach this issue, understand that teachers may have many reasons for their reluctance to move from traditional closed questions to questions that encourage all students to participate in an open discussion. Teachers often worry about the consequences of effective questions, which include the increased noise or buzz of engaged discussions; a perceived lack of control; the possibility of misinformation circulating during the discussion; taking time away from content coverage; and the problem of knowing which students are engaged, as active listening is not as overt an activity as answering a direct question. Analyzing the issue from many possible points of view can also help you address teacher concerns.

First, share the common misconceptions about strategic questioning with the teachers. Talk about the ways that effective questions generate student thinking and motivate students to construct high-quality responses. Agree with them that as the classroom becomes a place for lively discussion focused by planned and invigorating teacher questions, they may have to develop new strategies for covering content. Asking effective questions, like formative assessment, is not something you add to what you are already doing. It requires a fundamental reframing of what it means to teach and what we accept as evidence of learning. Assure them that you are not asking them to change everything they do, but rather to use effective teacher questions to transform the classroom into a more vital and valuable environment for them and their students.

You can use many of the strategies in this chapter to help teachers become more effective in asking strategic questions. You can also use feedback from walkthroughs and formal classroom observations to suggest the next steps each teacher can take to stretch a bit without completely leaving the comfort zone. One idea would be to suggest that the teacher plan one or two substantive, open

questions to stimulate discussion and then adjust the lesson plan so that the traditional lecture is followed by an open discussion of 10 or 15 minutes, in either group or whole-class format, based on the questions.

Whatever you suggest, the important point is to encourage and expect the teacher to incorporate strategic questioning. Know that teachers will be reluctant for a host of reasons. Listen carefully to those reasons and provide suggestions that are appropriate and supportive.

Reflecting on Strategic Teacher Questioning

The formative assessment process helps students develop inquiry skills that will enable them to continue learning throughout life. As you reflect on strategic teacher questioning as an essential element in the formative assessment process, consider the following questions:

- Do teachers' lesson plans include a list of strategic questions that are closely tied to the learning targets in order to engage students with crucial concepts in meaningful ways? Or do teachers commonly "shoot from the hip," asking random questions that may or may not lead students to a deeper understanding of the important concepts of the lesson?
- Do teachers consistently monitor and refine the quality of the questions they ask and the questioning strategies they employ in order to better help students learn how to learn? Or do they commonly view teacher questions as vehicles for determining which students can recite the correct responses and which students are paying attention?
- Do teachers employ a growing repertoire of techniques to provide appropriate wait time after posing a good, meaty, open question? Or do teachers routinely use rapid-fire techniques with virtually no wait time, thereby promoting short responses from the same small group of students?
- Do you model effective questioning in faculty meetings, professional learning community meetings, and other professional learning conversations?
- Do you have a plan for sharing research on specific formative assessment strategies with teachers (for example, research on wait time and its effects on student achievement)? How can you be a more effective resource on research-based practices for the teachers you serve?

Summing It Up

The research is painfully clear: In spite of numerous inservice workshops and well-written how-to resources on asking effective questions, in too many cases, teacher questioning and class discussions lack quality and rigor. In most classrooms, teachers are still using low-level, rapid-fire recall questions that require a quick response and minimize student engagement with important content and modes of reasoning.

The formative assessment process gives school leaders a comprehensive and transformational way to help teachers incorporate strategic questions into the heartbeat of their classrooms. The process is comprehensive and transformational because it approaches strategic teacher questions as being integral to helping students learn where they are going, where they are now, and how to take the next best steps in that learning journey.

But in the formative assessment process, teachers are only half of the learning partnership. Helping teachers become strategic questioners takes us only halfway to our goal. Our students must see questioning as a productive way to contribute to classroom dialogue and, most important, as a mind tool for learning. Chapter 7 explores the role of student questioning and the effect it can have on learning and motivation. Together, Chapters 6 and 7 provide crucial insights for enriching classroom talk, developing productive habits of mind, and promoting optimal learning environments in which teachers and students share responsibility for the learning.