explaining individuals' interpretation of the expression. At the bottom of the sheet is written an equation "Call a Classmate + No Hogs, No Logs = No Need for Hands Up." This is a message to students that a teacher may call on them at any time to contribute, knowing that the student can defer answering by "calling a classmate" to help.

As norms rather than class rules, each focuses on a positive action learners can take to support both their own and others' learning. In this way, the norms give students a new role to play. For Julie and Erika's students, this is vital to their growth. Most of their students are accustomed to being relegated to a peripheral role in their general education classes, often concerned more with merely keeping up or flying under the radar than being active participants. Julie and Erika know that for their students to become more independent and proficient learners, they need to change the way that their students interact in class, both with the content and with each other.

BEYOND SIT AND GET: TEACHING STUDENTS TO BUILD ON ONE ANOTHER'S IDEAS

Who can tell me . . . ?

Who remembers . . . ?

What's the name for . . . ?

What do we call . . . ?

What is the main idea?

Questions such as these are pretty standard-fare "review"-type questions that call on students to recall and give back information. When teachers ask such questions, a typical pattern of discourse follows: the teacher questions, a student responds, and the teacher evaluates, QRE. This pattern, sometimes known as IRE (initiate, respond, evaluate) as well, is the default style of discourse in many classrooms (Cazden, 2001); unless we as teachers make deliberate attempts not to employ such a pattern of interaction, then the QRE form is likely to prevail.

Why might we want a different pattern of interaction? Although all teachers engage in QRE at times—for instance, at the start of a class to activate prior learning—it is important to recognize its limitations. First, the QRE form often, though not always, focuses primarily on memory as the chief cognitive function and so has limited effect in developing thinkers. Instead, classrooms dominated by QRE reinforce the notion that learning is memorizing (Bereiter & Scardamalia, 1989). Second, the discourse pattern that results can be described best as resembling a Ping-Pong match back and forth

between the teacher and a single student, leaving much of the class out of the interaction. Even a skilled practitioner would have a hard time making sure everyone in the class gets to play the game. Furthermore, the teacher is the one getting most of the practice, with very little actual discourse happening, though it might feel like an engaging class . . . to the teacher at least. Even when multiple answers are collected, the pattern can feel more like a scattering of isolated responses.

For actual discussion to take hold, both students and teachers need different patterns of interaction. Instead of Ping-Pong, basketball might be a more useful metaphor for a productive discussion, one in which the ball (question) is passed around and ideas are bounced off one another, as the ball is moved down the court.

Cameron Paterson has been trying to foster just such patterns of interaction in his classroom for some time and has found the use of thinking routines and protocols to be helpful. Although his grade 12 Modern History class of high-achieving boys at a private school in Sydney, Australia, may seem a world away from Erika and Julie's special education class in Michigan, he, too, knows that students must be given new structures and roles to play in the classroom if the student-to-student interaction is to change. Cameron's students come to their senior year with their primary focus on learning what is necessary to score well on the Higher School Certificate (HSC) exam that will determine the trajectory of their university education. Consequently, there can be an underlying assumption that the teacher should merely deliver the goods and the students should sit and get. It is too often assumed, by teachers and students alike, that memorization equals preparation. Changing this passive and dependent pattern of interaction between student and teacher requires that a teacher earn the trust of the students and that new patterns of student-to-student interaction deliver in terms of learning.

When I enter Cameron's classroom, it is near the end of the school year. Course work is over, and students will soon be sitting their exams. A sample HSC question is written on the whiteboard for today's lesson: "Evaluate the impact of the Khmer Rouge on Cambodia in the period 1975–1979." As students arrive and quickly find their seats, Cameron begins: "You had an essay due today. It was a hard question. In fact, it was harder than the kind of thing you might be asked on the HSC." Pointing to the whiteboard, Cameron draws the class's attention to the HSC question. "This is the type of question you might be asked. What I would like for you to do in the next five minutes is to free-write on that question. Just write without stopping. Work through the block." With no more direction than that, students get started, most writing in their notebooks, only one on the computer. It is clear that students have done this kind of writing before, as they don't ask for clarification or further direction.

Cameron quietly moves through the classroom, and when he notices a student pausing in a contemplative manner, he tells him, "You're thinking too much. Just write." To the class as a whole he instructs, "When you think you are running out of ideas and are stuck, that is often when you come up with the best ideas. Just keep writing. No mistakes here. Just keep writing."

At the end of five minutes, Cameron calls the class back. "OK, wrap up where you are at. Now, what you have just done is prep for the activity we are about to move into. We have used the Micro Lab several times this year. I'm going to ask you to get ready for that in groups of three. Move yourself so you are in a group facing each other."

The Micro Lab protocol (Ritchhart, Church, & Morrison, 2011) is a simple structure for discussion. Working in groups of three, each member shares his thoughts on the topic or question of focus without any interruption, questions, or input from the other two members. After all three have shared, then an open discussion ensues. The structure ensures that everyone gets his ideas on the table, that participants listen to one another, and that a conversation has a strong basis on which to build.

"Decide who is going to go first, who second, and who third," Cameron directs. "Remember, you will have two minutes to speak followed by thirty seconds of silent reflective time. Just a reminder, if you run out of things to say, then your group sits there silently for the rest of your time. After the three rounds, then in the discussion is your chance to push each other's ideas. Any questions?"

"So, no arguing while they are speaking?" a student asks.

"No, not while," Cameron responds.

"So, he is arguing one side and me the other?" another student asks, thinking of another activity Cameron often uses where he writes a provocative statement on the board (for example, "Pol Pot was mad") and then pairs students up to argue both sides of the statement.

"No," Cameron explains. "We have done that before, but this is not that." Adding one last direction before setting the timer, Cameron reminds the class, "Some people found it useful to take notes last time we did this. OK, would the first speaker begin."

The class settles into a low hum as the first speaker in each group commences. Huddled in small groups, the listeners are able to make eye contact with the speaker and demonstrate attentive listening. Every once in a while, a listener writes down a comment made by the speaker. As students share their thinking about the impact of the Khmer Rouge on Cambodia, Cameron moves around the room listening in. Before moving to the next group, Cameron returns to the whiteboard and records in red marker a few of the ideas he has overheard. As the two minutes wind to a close, he has gathered a list of ideas

from each of the groups: military, political, econ-4 year plan, Vietnam's impact, alliance with China.

As the timer goes off, Cameron calls for the speaker to stop and informs the class, "OK, thirty seconds of quiet." The class falls silent. A few students write brief comments in their notebooks.

The class moves through the next two rounds of the Micro Lab as Cameron acts as timekeeper, listener, and recorder. The timekeeper is a pretty straightforward and necessary role in the Micro Lab protocol and isn't too much of a departure from a teacher's traditional role in the classroom. However, the dual role of listener and recorder recasts the role of both teacher and student. By listening to what students say, pulling out their ideas, and validating them by recording them on the board, Cameron has placed students in the active role of the knowledge generators. Of course, teachers often gather ideas from the class and record them. However, those instances still tend to operate popcorn style, with individuals giving short answers and many students sitting passively. In the Micro Lab protocol, students are required to take an extended role as speaker, to lead with their ideas. Furthermore, the interaction is with their peers as colearners and discussants rather than with the teacher. Cameron's listening signals that he is attending to the conversations, that those conversations are important, and that he is interested in what students have to say. In listening in, he gets a better sense of each individual student's learning than he would in whole-class setting.

In the next round, Cameron records key ideas in blue on the whiteboard: executions—impact of death, agriculture, rural, peasants, collectivization, US role, role of terror. In the final round, he switches to green to record the ideas emerging in the discussion: bombings, religion, refugees, Sino-Soviet split, detente, importance of foreign influence, aims of K.R. The board is now full of ideas, all generated from the class, with each individual student represented.

At this point in the Micro Lab protocol, the triads would have an open conversation connecting all that was said over the previous three rounds. Cameron decides to have this conversation as a whole class, using what he has written on the board as backdrop for the conversation. "So what connections are you making now as a result of what you have just heard? What are you thinking in terms of the impact of the Khmer Rouge?"

"Probably like take economics and divide that up into categories," Elliot responds. Clearly the idea of responding to the question on the exam is foremost in his mind rather than the issue itself.

Max offers, "Probably more of a long-term impact than short-term."

Before anyone else has a chance to throw out an idea, a student in the front pipes up, "Do you want us popcorning, or are we supposed to be ice-cream-coning now?" His comment references previous discussions Cameron has had with the class about what real conversation looks and sounds like, using making popcorn as a metaphor for ideas simply being tossed out versus the metaphor of building on one another's ideas as in scoops in an ice cream cone, with each scoop resting on the foundation of the one preceding it. With the ice cream cone metaphor there is a sense of something being built, and one can look at a class discussion as constructing several ice cream cones, each of various heights, over the course of the conversation.

Cameron responds that he wants ice cream cones, and with that the conversation shifts as students begin to offer their thoughts on long-term versus short-term impacts; the rapid rise of the Khmer Rouge as a result of the bombings; the immediate suffering and torture, versus the lingering effects of eliminating the educated class. Students begin to preface their comments differently as well, using more connectors: "To go along with that . . . ," "On the other hand . . . ," "Building on that . . . ," "Adding on to what Lachie said . . ." Giving students these kinds of sentence stems, much as Erika and Julie provide their students with sentence starters for their Enbrighten roles, can be useful in supporting a new way of interacting and a different pattern of discourse.

It is clear that the discussion could now go on for some time. When a student poses the idea that the Khmer Rouge had more impact on the young than the old, Cameron lets the idea hang in the air. "That's an interesting theory. Let's hang on to that as we move into this activity." With that, Cameron directs the class into new learning roles to take their thinking deeper.

Erasing all the notes from the whiteboard, Cameron explains that they will be using the Generate-Sort-Connect-Elaborate (GSCE) routine as the structure for further exploring the HSC sample question: "Evaluate the impact of the Khmer Rouge on Cambodia in the period 1975–1979." GSCE is a routine used to create concept maps in a way that illuminates the importance and connections between ideas (Ritchhart et al., 2011). Experienced in using this routine, Cameron adapts it and uses it flexibly to scaffold the boys' learning. He divides the class into two groups and explains that the first group should "think about the keys to answering this question [the HSC prompt] based on all the ideas we have already generated. Place the things that you think are important to answering the questions close in, and those that are less important toward the outside." Turning to the other half of the class, he directs, "Watch what they are putting up and see if you agree. Your job when you go up is to draw connections between the things that they are putting up, particularly the important connections. Write big, please. Do this in silence."

In ten minutes, the whiteboard is full of ideas connected to one another and elaborations. Near the center are ideas of culture, economics, the emphasis on traditional rural life, and loss of intellectuals. The board is messy, but represents the students' thinking together, building on others' ideas, and going beyond a set of memorized bullet points of effects. To bring this home, Cameron asks the class, "What on this board is pushing your thinking beyond that initial five minutes of free writing? What are you thinking about now that you weren't then?"

MAX: It puts it more in context.

JOHN: The desire to make things last for a long time. I wasn't thinking about the molding of society and the new education of children.

CAMERON: Can I ask Jack to expand on the link between Confucian and Asian values? How does that fit in here?

JACK: It's going back to ancient values. It links to new world impact because the new world was the old world. They were holding on to Confucian values.

CAMERON: [Reading from the whiteboard] "What's rotten must be removed." Why is that an important statement?

Note that as the class responds to the latest question from Cameron, the students respond in "ice cream cone style," building on the comment that comes before by extending it, taking an element deeper, connecting ideas together. This is a mark of real discourse.

DUNCAN: All aspects of the whole society have to be cleansed. Social and racial purification.

LACHIE: Cultural.

JACK: And that purification implies change to economics as well.

ELLIOT: That's what brought them down in the end.

As the class winds to a close, Cameron asks one last thing of his students: "Would you write me a one-minute essay on how the structure of our class today contributed to your learning, please." Many teachers use one-minute papers or exit tickets as a way to close a class. By asking students to reflect on the structures Cameron has employed as a teacher to facilitate students' learning, he is setting up a feedback loop with students, letting them

know that he cares about their learning and about improving as a teacher. It is a simple communication tool setting up another important teacher-student interaction (Brookfield & Preskill, 1999; Lee, 2004).

BUILDING CULTURE THROUGH AFFECT AND ACTIONS

The affective attributes researchers identify as facilitating learning, promoting academic achievement, supporting critical thinking, and creating a culture of thinking are remarkably similar and won't be surprising to anyone: empathetic, warm, caring, genuine, authentic, positive, respectful, trusting, sense of humor, and so on (Cushman, 2005; Resnick et al., 1997; C. R. Rogers & Freiberg, 1994). If you can describe your teacher in those terms, chances are you enjoyed being in his or her class. In and out of teaching, we all know people for whom such qualities seem a natural part of their personalities, but we needn't reduce these attributes to the artifacts of personality alone. Any of us as teachers can communicate these qualities through our actions: making eye contact, smiling, knowing students' names, sharing a personal side of ourselves, admitting our mistakes, showing ourselves as learners, taking an interest in students' lives, holding students in high personal regard as human beings, not making conflicts personal, following through and being dependable, listening, supporting, and so on. If being warm, caring, and genuine doesn't come automatically for you, remember that it is easier to act your way into a new way of feeling than to feel your way into a new way of acting (Pascale, Sternin, & Sternin, 2010).

The literature suggests three other fundamental actions for teachers interested in developing a culture of thinking while promoting high academic achievement, independence, and prosocial development:

- Being nondirective
- Pressing for thinking
- Supporting student autonomy

"Nondirectivity" would not be my first choice of a word to describe this teaching action, but it happens to be a term used by researchers. This alone wouldn't make it worth sticking to, but it so happens that nondirectivity comes up ahead of all other teacher interaction/relational variables as having an impact on student achievement (Cornelius-White, 2007; Hattie, 2009). That is what makes the construct worth understanding. To say that a teacher is nondirective is not to say that he or she lacks direction or fails to

direct the learning of the class, but rather that the teacher is not controlling. Dominant, authoritarian figures may be good at eliciting compliance from students, but they are not as effective at promoting learning or developing thinkers.

Nondirective teachers share power with their students, allowing them to be legitimate partners in the conduct of the classroom, much the way Julie and Erika did in letting their students set the parameters for Enbrighten. Nondirective teachers also encourage student voice, meaning that students know that their contributions matter to the class and directly shape the lesson. We saw this in Cameron's classroom. His students knew that their ideas and contributions were the basis for the lesson. In contrast, if students feel that the lesson would have proceeded exactly as planned whether they were there or not, a stance some scripted programs take, then they are unlikely to feel they have a voice. Robert Pianta, who has worked extensively to both measure and develop positive classroom interactions, ties the ideas of voice and power together beautifully when he states that teachers must "provide opportunities for students to have a formative role in the classroom" (Pianta et al., 2012, p. 374).

Pressing for thinking is also one of the teacher interaction/relation variables that correlates highly with student achievement. I particularly like the phrasing of "pressing for thinking"; it captures precisely what teachers need to do. We all want our students to be thinking, and we certainly hope to encourage our students to think. We may even try to create opportunities and provide time for thinking. All good moves, but we must also *press* our students to think—meaning that we push, prod, and promote thinking. We don't let students off the hook with half answers or responses that aren't backed up with reasons and evidence.

When Madison gave a superficial explanation of her drawing as visualizer, Julie and Erika didn't let her off the hook. They pressed. Although they didn't get as much from her as they would have liked, and Julie stepped in to model what a more elaborative response might look like, the act of pressing in and of itself was important. It sent a signal to Madison and the rest of the class that Julie and Erika held expectations for a higher performance. When pressing is combined with warmth, empathy, and support—that is, when teachers are being warm demanders—students know that teachers are invested in their success.

Autonomy-supporting (Deci & Ryan, 1985) teachers are always looking for ways to step back so that students can step forward. They want their students to feel in control of their learning, to feel that they have the skills and abilities to direct and guide it and are hence competent learners (Stupnisky et al., 2008). Like good parents, they combine high demands with support (Baumrind, 1989) to encourage independence. Within this context, there is a

bond of trust that develops in which students feel that it is safe to take risks as learners (Shernoff, 2013).

Julie and Erika's overarching goal is for their students to take control of their learning and to display both confidence and competence. Toward this end, they provide lots of scaffolding within a supportive atmosphere and encourage risk taking. They allow their students to step forward to act as facilitators. When a science teacher at the school reported that one of their students was able to make a claim about what was happening in a science experiment the teacher had conducted, and was also able to back up that claim with evidence, Julie and Erika knew they were making a difference. Likewise, when another student asked for a copy of the Enbrighten game to play at home and teach her parents, Julie and Erika knew that the student owned her learning.

SHAPING INTERACTIONS THROUGH ROLES

Most classrooms operate under a set of tacit norms, what Derek Edwards and Neil Mercer (2013) call "educational ground rules." If we want to break with the status quo and create new patterns of interaction both with and among our students, it is worth being explicit in defining the norms we truly want to encourage. There are many helpful resources on setting group norms (Allen & Blythe, 2004; Phipps & Phipps, 2003). One technique is to ask the group to think about what conditions they need in order to do their best learning. Another is to observe an effective learning group, as Erika and Julie did using "Austin's Butterfly," and identify what group members did that helped support learning. Cameron Patterson uses "The City of Reggio Emilia Story" (Project Zero & Reggio Children, 2001), a story of effective group work among preschoolers, to help set norms with his secondary students.

Leslie Herrenkohl and Marion Guerra (1998) suggest four important norms for groups: contribute to group work and help others contribute, support ideas by offering reasons, work to understand others' ideas, and build on one another's ideas. Such norms help build commitment to the group as well as direct the action of individuals. This commitment to the group's learning has been shown to be key to advancing the learning of all individuals (Boaler, 2008; Watanabe, 2012).

In addition, it can be useful to give students specific intellectual roles that help them acquire new thinking skills. Literature circles, book clubs, and the Enbrighten game frequently do this. When I observed Philip Cummings's sixth-grade class at Presbyterian Day School in Memphis, I noticed that he assigned roles to teams of students as they researched the problems of racial discrimination in their community. Among the roles

were original thinkers, connectors, Johnny opposites, reliability cops, mind readers, and cleaning crew. The roles allowed groups to focus their attention rather than become overwhelmed with all that had to be done. Herrenkohl and Guerra (1998) taught fourth-grade science students three roles to help them build scientific explanations: predicting and theorizing, summarizing results, and relating evidence or results to the theory and prediction. They found that the biggest learning effects occurred when students took on these roles not only as they engaged in building scientific explanations but also when listening as audience members to other groups.

ASKING "GOOD" QUESTIONS

Questions are one of the prime ways teachers interact with students in classrooms. Our questioning helps to define our classrooms, to give it its feel and energy—or lack thereof. Questions are culture builders, linking students, teachers, and content together. In the cases presented in this chapter, Julie, Erika, and Cameron used questions as vehicles to direct attention, foster understanding, push beyond simplistic answers, and expose students' thinking.

As teachers, we all want to ask good questions, the kind that can drive learning and elicit deep thinking. To truly tap into the power of questions, however, we must keep in mind that our questions are rarely something we plan in advance; rather, they emerge from our goals and expectations (see chapter 2). These goals help us identify five main types of questions teachers ask:

- **Review questions** ask students to recall previous knowledge or procedures. Many teachers begin a class with review questions to reactivate prior learning. "Can you remember what we talked about yesterday?"
- **Procedural questions** direct classroom activity and behavior rather than focus on content—for example, "Does everybody have a pencil?" Procedural questions are generally less effective than stating a clear directive: "Everyone get out your pencils, please."
- **Generative questions** spark inquiry. They come in two main types: essential questions that direct long-term exploration, or authentic questions, which are content questions to which the teacher doesn't already know the answer. "How do totalitarian regimes such as the Khmer Rouge gain and sustain power?"
- **Constructive questions** advance understanding. These are questions that ask students to connect ideas, make interpretations, focus on big ideas and central concepts,

extend ideas, and so on. "So what connections are you making now as a result of what you have just heard?"

- **Facilitative questions** ask students to explain or elaborate thinking, to make it visible. These are follow-up questions to a student's response that cause the student to go deeper. "What makes you say that?"

The Cultures of Thinking research team looked at teacher questioning to understand how CoT classrooms differed from more traditional classrooms and how teacher questioning changed over time as teachers worked to build a culture of thinking in their classrooms. We found that traditional classrooms are often dominated by procedural questions used by teachers to direct the work, along with review questions. Further, we observed that as classrooms increasingly become cultures of thinking, teacher questioning shifted away from asking review questions toward asking more constructive and facilitative questions. This can be understood as a shift in terms of goals. Whereas teachers asking review questions tend to do so because they want to determine what students know and remember, teachers ask constructive questions because they want to guide, direct, and push forward students' understanding of important ideas. Furthermore, facilitative questions serve the goal of making thinking visible. We saw how both of these goals played out in the classes we looked at in this chapter.

In Julie and Erika's class, the roles students assumed put them in a constructive stance of making sense of the story and building understanding rather than merely recalling information. In Cameron's class, students' intellectual work centered on a big question: How do we evaluate the impact of the Khmer Rouge? (Note: the HSC prompt was written as a directive, but I have reframed it here as an essential question.) He then used mostly constructive questions as he guided students through the exploration of that big question:

- So what connections are you making now as a result of what you have just heard?
- What are you thinking in terms of the impact of the Khmer Rouge?
- What on this board is pushing your thinking beyond that initial five minutes of free writing?
- What are you thinking about now that you weren't then?

Julie and Erika, working as warm demanders, used facilitative questions to press students to elaborate and think more. These questions signaled to students that answers without explanations aren't sufficient:

- What makes you say that?

- What made you draw this?
- How does your idea connect to Kate's?

CREATING NEW PATTERNS OF DISCOURSE

Conversation is an "unrehearsed intellectual adventure" (Oakeshott, 1959). It is a medium that brings us into contact with the thinking and perspective of others and thus fosters new insight. Through dialogue, we develop trust and respect even as we learn to care for others and to be cared for by them. However, much of the discourse that happens in the classroom isn't truly dialogic or conversational, due to the dominance of the QRE style of interaction. One way of breaking this default pattern of interaction is for us as teachers to make deliberate attempts to move from playing Ping-Pong to playing basketball. That is, we need to look for more opportunities to pass the ball/question, bring others in, and connect students in conversation. As a start, you might adopt this as a goal for a lesson. You can also share that goal with students and then ask for their feedback on how you did. This explicitness is a way of sharing power by enlisting students as allies.

The switch to "playing basketball" is largely a teacher move. However, students have a role to play as well in enabling real conversation to take place. Cameron enlisted his students by discussing with them the difference between popcorn-style comments and comments that build a conversation as in the layers of an ice cream cone. These metaphors then took hold in the classroom and allowed both Cameron and his students to monitor their efforts. Some students benefit from teachers' providing actual sentence starters they can use in prefacing their comments:

- Connecting to what _____ said . . .
- I want to agree/disagree with _____, because . . .
- Piggybacking on _____'s idea . . .
- _____'s comment is now making me think . . .
- If we follow that idea out, then . . .
- Building on _____'s comment . . .

Another teacher move that can break the QRE pattern and facilitate a different kind of interaction is use of the "reflective toss," a term coined by science teacher Jim Minstrell to describe the questioning sequence he uses to facilitate and clarify students' thinking (van Zee & Minstrell, 1997). Traditionally, researchers have characterized discourse as originating with the teacher's question. However, Jim took students' comments and ideas

as the starting point for dialogue. In the reflective toss, the teacher's first goal is to try to "catch" students' meaning and understand their comments. If meaning can't be grasped immediately, then a follow-up question, such as "Can you say more about that?" or "I'm not quite following you; can you say what you were thinking in a different way?" is asked. Once the teacher grasps the meaning, then the teacher "tosses" back a question that will push the student to further elaborate and justify her thinking, both to the teacher and to herself. For instance, Jim might ask a student, "What does that tell you then?" "What do you think you were basing that on?" or even the old standby, "What makes you say that?" The idea is to push the student to think further about her response.

By creating new patterns of discourse, providing students with roles that structure learning, and asking good questions, we can do much to shape the interactions of our classrooms. These practices become even more powerful when they are situated within an atmosphere that seeks not to control students but to develop them as autonomous learners. And this goal, too, sits within a broader context. It is only attainable in an atmosphere in which students are genuinely liked and respected. We must show an interest in and a respect for students' thinking. Only then will they truly make their thinking visible to us and provide us with a window into their learning. It is within an atmosphere of mutual respect and interest that strong interactions, teacher-to-student as well as student-to-student, are built and a culture of thinking truly takes hold.

PROMOTING INTERACTIONS THAT SUPPORT THINKING AND LEARNING

- Establish norms. Although norms are typically set at the beginning of the year or when groups start, it is never too late to set them. Use the opportunity of the class embarking on a new project, activity, or group work to create norms for those efforts. Use the fishbowl technique or analyze a video of effective learning to focus students on positive actions.
- Create roles. Identify a learning situation that your students need to master (reading comprehension, building scientific explanations, doing research, analyzing data, and so on). Name the particular intellectual hats one needs to wear or stances one needs to take to effectively deal with that situation. These are the roles. Break those roles down further into a set of behaviors, actions, or questions that students can use as they assume those roles.
- Survey your students. Cushman and Rogers (2013) interviewed students, asking them such questions as: What do you wish teachers knew about you as a learner? What are the things teachers do that let you know they respect and value you? What advice would you give teachers to bring out the best in students? Create your own questionnaire, perhaps with a colleague, to find out what your students think. Be prepared to share and act on the results if you want your students to trust that you value their opinion.
- Start a connection ritual. It might be as simple as greeting each student as he or she comes into the room or finding time in class to comment on, interact with, connect back to, or notice something about every student. It might be a more elaborate morning meeting.
- Analyze your questions according to the five types (see the section "Asking 'Good' Questions"). To find out more about what kinds of questions you are asking, videotape or audio-record yourself or have a colleague observe you and record the questions you ask. Partnering or forming a triad with colleagues will give you the opportunity to be both observer and observed.
- Change the hands-up norm. Asking questions and calling on students who raise hands can force you into a QRE pattern or privilege a few students who are quick responders. Use a random-number generator or students' names written on

Popsicle sticks as an alternative. Another alternative is to call on students through eye contact only.

- Practice the reflective toss. Make sure you have caught a student's meaning. If you are unclear or think you are making assumptions, ask for more information or a restatement. After a student responds and you are confident that you have caught the meaning, pause briefly and then ask, "What makes you say that?" What are you learning about your students and their thinking and understanding as a result of this simple question?
- Solicit feedback. Create a questionnaire to give your students midyear or at the end of the term to find out how things are going for them, what is working for them as learners and what isn't, and how they view you. Don't ask any questions you aren't truly interested in or willing to act on. Be prepared to share results with your students and explain how you will make use of the information.
- Be a student of your students' culture. Connecting with students of different backgrounds, generations, ethnicities, or cultures means not assuming that they should act or respond the way you might. Find out about what gets rewarded, valued, and appreciated in the cultures of your students. What does success look like from that culture's perspective? What and who gets respect? How are conflicts dealt with?
- Practice genuineness. What part of you as a learner is appropriate to share with your students? Share a struggle as a learner, something you are excited about, or a story of how you learned from a mistake.
- Create the role of learning journalist. On a rotating basis, appoint a student to look for and record key learning moments, great examples of students building on or extending others' ideas, or good questions that were asked.
- Use protocols to structure how students interact. Simple protocols such as Micro Lab or the Final Word (www.NSRFharmony.org/content/final-word) can help students learn to listen and discuss.
- Create a culture of revision. When work, ideas, projects, drawings, or experiments move from draft form to increasingly higher levels of performance, you create a need for feedback and learning from feedback. Strategies such as the Gallery Critique can be useful in establishing this culture (Berger, Gardner, Meier, Sizer, & Lieberman, 2003).