

6

Create a Culture for Thinking

How Can You Use Quality Questioning to Create a Classroom Culture Where Students and Teacher Work Together to Advance Thinking and Knowing?



FOCUS QUESTIONS

1. How do you define a culture of thoughtfulness?
2. How do roles and relationships help define a culture?
3. Why is it important to actively teach norms for thinking through quality questioning?
4. What is the value of a language of thinking in creating a culture of thoughtfulness?
5. How do you define habits of mind? Which habits of mind underpin thinking and questioning?
6. What form can celebrations of questioning and thinking take in classrooms that are building thoughtful cultures?

To talk about a classroom culture for thinking is to talk about a classroom environment in which several forces—language, values, expectations, and habits—work together to express and reinforce the enterprise of good thinking.

—Shari Tishman,
David N. Perkins, & Eileen Jay (1995, p. 2)

Thomas Sergiovanni (2005), a thought leader in education leadership, refers to culture as “the normative glue” that holds a school together. Characterized by “shared visions, values, and beliefs at its core, culture serves as a compass setting, steering people in a common direction” (p. 1). The glue metaphor is no less appropriate for a classroom culture. If we are to create thoughtful classrooms, teachers and students need to be connected by a positive web of relationships based upon shared norms and habits of mind that value the process and outcomes of thinking.

Throughout this book, we introduce norms that underpin quality questioning and thinking. Norms, often described as “the way we do business around here,” are the cornerstones of cultures. We cannot create classroom norms with a snap of our fingers or by posting them on a bulletin board. They evolve over time as individuals interact with and relate to one another. A teacher’s success in gaining buy-in to preferred norms depends upon the quality of relationships among the targeted group. Like norms, relationships develop over time. So what does this mean for the creation of a classroom culture of thinking?

To create a culture, one must begin with a vision for what that culture should look like. Our vision for student thinking and learning appears in the opening of Chapter 1. Attainment of such a vision is always a work in progress, a never-ending endeavor. The building blocks for the vision are presented in Chapters 2 through 5, which focus on behaviors. These behaviors are associated with values and beliefs related to the vision.

As we were conceptualizing this book, there was no doubt that we would include a chapter on culture. The decision about where to position the chapter, however, was a difficult one. The question was whether to place it at the beginning or at the end of the book. Experience teaches that quality questioning and thinking behaviors cannot develop and blossom in a classroom devoid of a nurturing culture—so the temptation was to place it first. We know, however, that changes in beliefs follow changes in behaviors that lead to positive outcomes—hence, an argument can be made for placing it last, after the desired behaviors have been explicated. You are reading the answer to our question!

This chapter explores five behaviors associated with creating a culture for thinking:

- Develop collaborative, caring relationships
- Teach and reinforce norms for questioning and thinking

- Adopt a language of thinking
- Cultivate habits of mind
- Celebrate breakthroughs in thinking

As David Kobrin (2004) has observed (see quote), successful classroom leadership is shared among teacher and students. Likewise, teachers and students must share responsibility for these five behaviors if an authentic culture for thinking is to emerge.

DEVELOP COLLABORATIVE, CARING RELATIONSHIPS

Positive cultures begin and end with positive relationships. Positive, collaborative, and caring relationships are also the lifeblood of classroom cultures that nurture thinking. In Chapter 5, we linked student collaboration to improved student learning outcomes. We have repeatedly emphasized the importance of teachers communicating their interest in student answers, their commitment to student thinking, and their caring about student learning and growth. Throughout the book, we've focused on the importance of teachers working collaboratively to formulate quality questions, expectations for student responses, and potential scaffolds, and to reflect on their use of alternative questioning strategies and the results for students. All of these behaviors involve different roles and relationships than those found in traditional teacher-centered classrooms, in which control and compliance influence teacher-student and even student-student relationships.

What does it mean to be the person in charge of a classroom? I like to think of teachers as leaders of small communities who bear responsibilities as overwhelming as those which face leaders of vast nation-states. To teachers falls the task of creating a classroom environment that promotes growth, learning, and understanding for all. Yet that's not a job one person can manage alone. Fortunately, every classroom has plenty of potential help: the students. The problem is marshaling the kids to the cause. . . . Classroom leadership depends on evoking willing participation from the kids in the room.

—Kobrin (2004, p. 1)

Thinking Through QQ: What beliefs and values do you associate with collaborative, caring relationships? Jot these down in the margin. Now, compare them with our list in Figure 6.1. Have you identified beliefs that we omitted? If so, add them to the chart. Did you omit any that appear in this chart? Would you like to cultivate those in your classroom?



Figure 6.1 Beliefs and Values Associated With Collaborative, Caring Relationships

Belief/Value	Impact on Questioning and Thinking
1. Trust	Students are more likely to give and receive assistance (e.g., Use teacher scaffolding to reflect and continue thinking).
2. Respect	Students listen to one another—and to the teacher! They value diverse points of view.
3. Confidence	Students are willing to speak up and contribute in both small collaborative groups and whole-class interactions.
4. Security	Students are willing to take chances; they are not afraid to experiment, offer hypotheses, or ask questions.
5. Interdependence	Students understand that all of us know more than any one of us, and they willingly give and receive assistance.
6. Empathy	Students seek to understand where their peers are coming from and support them when they are discouraged.
7. Motivation	Student motivation increases when students know that their teacher and peers care whether they know and learn.

Later in this chapter, we will explore habits of mind that are associated with thoughtfulness. Because they contribute to both skillful thinking and positive relationships, some of these habits appear on this list as well. They are what we call power beliefs.

How can teachers go about reinforcing these beliefs in their classrooms? We are guessing that you know your answer to this question and work with each new group of students to instill these beliefs. If you are like us, and like most other teachers who share these values, you use a variety of strategies to weave them into the fabric of your classroom culture, including (1) intentional and consistent modeling; (2) conversations with students about these beliefs, conducted in a systematic and routine manner (i.e., at the beginning of the school year, whenever a particular curricular topic opens a door, and when special occasions or incidents present an opportunity); and (3) reinforcement of behaviors that exemplify the beliefs. If beliefs associated with caring, collaborative classrooms are already part of your classroom culture, you have a strong foundation on which to build relationships that support a culture of thoughtfulness.

When we say we consider relationships essential to a culture of thoughtfulness, we are including teacher-student, student-student, and teacher-teacher relationships. Although all three types of relationships are

connected in many ways and influence one another in other manners, here, we will examine them one at a time.

Let's begin with teacher-student relationships that are collaborative and caring in nature and that nourish the culture we are imagining. First and foremost, we, as teachers, need to define the relationship as a partnership in learning, and we need to convey this to students in word and in deed. If we insist upon retaining our command-and-control role in the classroom, we cannot expect students to take ownership for their learning and become the kind of self-regulated learners we described earlier. This is a huge shift for many of us. Consider the changes highlighted in Figure 6.2.

As we cultivate learning partnerships with our students, we model the collaborative relationships we expect them to develop one with

Figure 6.2 Shifts in Teacher Role and Relationships With Students

From Command and Control	To Partner in Learning
Is the expert, the fount of all knowledge	Possesses expertise, but also serves as a coach and a resource broker for students; seeks to develop expertise in students
Establishes learning goals for the class that apply to all students	Expects students to form their own learning targets and assists them in doing so
Asks questions in order to get correct answers—has the answer in mind before asking	Asks questions to find out what students know in order to assist them in meeting learning targets
Almost always evaluates student answers and work products	Engages students in self-assessments and in peer assessments
Does a lot of telling or lecturing	Designs work for students that engages them in inquiry and discovery
Conducts class discussions in traditional manner—poses question; calls upon a student whose hand is raised; responds to that student, then calls on another; almost always comments after each student's response	Usually sits among students during a discussion, poses a question for discussion and invites students to interact with one another, asks questions only when curious or confused, and occasionally joins in with a comment
Tends to favor high-achieving students during class interactions by giving them more airtime during discussions, providing them with more wait time, more useful feedback, and so forth	Holds high expectations for all students, making all students accountable for knowing and responding in class; provides all students with equitable opportunities for responding

Figure 6.3 Shifts in Student Role and Relationships One With Another

From Individual Competitors	To Partners in Learning
Usually works alone and in isolation from classmates	Often is part of a learning team whose members work together to solve problems
Competes with classmates to get the best grades in class (or decides not to play the game)	Supports peers as all class members seek to attain learning targets and achieve mastery
Usually does not listen actively to classmates—listens only to the teacher, whose answers are the keys to good grades	Listens actively to classmates because the teacher values the insights of students and does not repeat student answers
Often fails to demonstrate respect for differing points of view	Listens to understand the perspectives of classmates who have different ways of viewing topics
Asks the teacher for help when a question or problem arises—rarely requests assistance from classmates	Turns to classmates with questions and requests for assistance—provides help to peers as needed

another. The idea is to develop a community of learners where students feel responsible not just for their own learning but also for their classmates' learning. This represents a sea change from the student-to-student relationship in traditional classrooms that is more competitive than collaborative in nature. Figure 6.3 contrasts the partnership with the competitive relationship.

Not only do teachers model partnership relationships with their students; they also do so with their peers. Students take notice when teachers collaborate with and learn from one another. We encourage teachers to find a peer partner who is willing to observe their classrooms for specific purposes and provide them with formative feedback and opportunities for reflection. Teachers who work in partnerships report that their students are very interested in the fact that their teachers are interested in learning and improving and that teachers work together toward this end. Students also know when they have assignments (and questions) similar to those of their peers in other classrooms; they know that teachers are talking and working together.

Classroom teachers have special opportunities for collaboration with inclusion and English as a second language (ESL) teachers who work with special populations in their classrooms. Again, students know if the professionals work as partners—that is, if teachers engage in shared inquiry to improve learning for targeted students. They also notice if the regular teacher assumes a proprietary attitude about the classroom.

The goal in a thoughtful classroom is to create a web of relationships that reflects a variety of partnerships in thinking and learning. Carefully crafted norms support the relationships we've outlined earlier.

Thinking Through QQ: Shifts in roles and relationships are necessary to the creation of a culture for thinking. Do you agree or disagree with this statement? Defend your answer.



TEACH AND REINFORCE NORMS FOR QUESTIONING AND THINKING

In each of the preceding chapters, we offered specific norms to support suggested behavior changes. We need to be clear: The mere posting of such statements in classrooms is not sufficient for their becoming authentic norms. Particularly in a community of learners, members must accept norm statements as guiding principles for their beliefs and behaviors. Norms that shape a culture for thinking require a different kind of buy-in from students than rules and procedures designed for purposes of classroom management.

If norms are to be truly effective, students as well as teachers must embrace them. This does not happen automatically; rather, teachers must design a plan that includes (1) presentation of each norm to students, (2) opportunities for student reflection about the meaning of the norm and its implications for their beliefs and behaviors, and (3) periodic review and refocusing on the norm. One model for teaching norms to students comes from Merrill Harmin (1994), who advocates truth signs, which he conceives of as "posted signs that remind students of important truths about learning and living" (p. 49). Harmin differentiates truth signs from classroom rules that tell students what to do. He offers the following as an example: "Everyone needs time to think and learn" (p. 49). Does this sound familiar?

Harmin also suggests that teachers introduce these statements one at a time over the course of the first several weeks of a new school term. We agree with Harmin that it is not enough to post these signs; we need to spend time in conversation with students helping them understand the *what* and the *why* of norms for thinking. Let's consider one of the norms we introduced in Chapter 3: Use teacher questions to prompt your thinking, not to guess the teacher's answer.

Perhaps the simplest and most direct way to help students understand a norm is to engage them in a discussion about it. Imagine the beginning of a school term with a class of fifth graders. Mr. Fernandez, a teacher in a self-contained classroom, is committed to introducing norms for questioning and thinking to his new students. What follows is the conversation he

has with them about the norm related to the importance of their thinking of their own answers to his questions, as opposed to trying to figure out what he, the teacher, has in his mind.

Mr. Fernandez: "I mentioned to you yesterday that we're going to talk about beliefs and behaviors that support our learning and thinking throughout our year together. Today I want you to reflect on this statement: Use teacher questions to prompt your thinking, not to guess the teacher's answer." (He points to a sentence strip on the classroom wall where he has posted the written statement.) "I'd like each of you to read this statement to yourselves and think about what it says to you." (He pauses for 30 seconds to give students time to reflect.) "Now, turn to your partner and share your thoughts about this statement." (He provides three minutes for student sharing.)

Mr. Fernandez: "Now I'd like to hear from some of you." (He pauses for three seconds.) "What did you and Alicia have to say about the meaning of this norm, Marty?"

Marty: "Well, I said it means that we should say what we are thinking, not what we think you are thinking." (three-second pause) "And Alicia said that she guesses that's what it means. But we both think that teachers want to hear right answers when they ask questions, so I guess we're kind of confused."

Mark: "I think Mr. Fernandez is interested in correct answers, but I think he's saying we need to think of our best answer and say it, even if we are not sure."

Mr. Fernandez: (nodding) "You're right, Mark. I do want you all to take your best crack at answering a question, but I want you to be thinking about what *you* know about the topic. I want you to focus on that, and then form your answer. I don't want you worrying about what I want you to say."

Mr. Fernandez: "Now, think about why we would need this norm for our classroom community. Speculate as to why I would make such a deal out of this?" (pause) "OK. What is your theory, Kate?"

Kate: "Uh . . . let me think. Oh, one thing I know is that most teachers don't seem to be asking us what we think; they

seem to call on the person who raises their hand to show they have the answer and want to say it. Maybe you want us to know that it will be different in this class."

Mr. Fernandez: "That's interesting, Kate, and you said just what I would have said. I remember when I was still in school, and I did just what you said. I raised my hand if I thought I had the teacher's answer. Last summer, though, I did some reading and thinking and I came to this conclusion: Usually, before I even ask students a question in class, I already have my answer to the question. In other words, I already know what I know and what I think. But I decided that questions really ought to be about what you know and what you think. Does that make sense to everyone?"

Joe: "Yes, I think it makes sense, but I know it's going to be hard for me to answer if I'm not sure."

Mr. Fernandez: "Well, Joe, I'll be waiting for your answer. See this norm?" (He points to another posted statement.) "Use the pause following the asking of a question to think and to formulate your response. This is about a concept called Wait Time 1, which is the time I'll wait after asking a question before calling on someone to answer. This is one of the think times we'll be giving one another. There's another time I'll be waiting for you to think, and that's after you stop talking when giving an answer. I'll usually wait three to five seconds after your last word before I say anything. The norm that addresses this is *Use the pause after your answer to reflect and add to or change it*. We'll be talking more about these two norms tomorrow. So stay tuned. Meanwhile, summarize what we've said today about the importance of your thinking of your own answers to my questions. Cynthia?"

Cynthia: "Well, we've been talking about the fact that you already know the answers to your own questions, so you want us to think of what *we* know and think when you pose questions—and not worry about *your* answer."

Mr. Fernandez: "Thank you, Cynthia. Thumbs up if you agree with Cynthia. Thumbs to the side if you are not sure." (pause) "Good, I see all thumbs up, and I'm going to expect to hear a lot of your good thinking this year."

Thinking Through Quality Questioning

We suggest that you have a similar conversation with students about all of the norms that you select to support thinking and questioning. We also recommend that you consider another strategy advocated by Harmin (1994), that of cushioning, which he defines as questions or statements intended to reinforce norms (p. 56). For example, imagine you are in Mr. Fernandez's class one week after the previous interchange. On that day, he plans to facilitate a whole-class discussion in which he'll be posing one to three focusing questions intended to lead his students into critical analysis and evaluation of a novel they have been reading together. He wants to remind them of the importance of voicing their own ideas:

Mr. Fernandez: "Today, you'll have an opportunity to serve as book critics. I will pose a few questions that I want you to think about individually. Then, we'll follow our protocol for discussion to surface your ideas about the novel we've read together."

"Before beginning, I want you to look around the room at the norms we have posted, and decide which of these will be important to the success of our discussion." (He pauses a minute or so to give students a chance to review the norms.)

"Which of our norms suggests that you should contribute your own ideas to our conversation?" (three-second pause) "Tony?"

Tony: "I think there are at least two that will help here." (He looks at the posted norm.) *"Use teacher questions to prompt your thinking, not to guess the teacher's answer, and use the pause following the asking of a question to think and to formulate your response."*

Mr. Fernandez: "I agree with Tony. How many of you selected these norms? Show me thumbs up if you did." (pause) "I think we have consensus. I am interested in why you think it's important not to spend your time guessing my answer." (pauses) "Alonzo, what are you thinking?"

Alonzo: "I think it allows me to focus on what I really think when I don't have to worry about your opinion."

Cushioning reminds students of the norms and connects them to the here-and-now classroom situations in which they can be most powerful. Harmin (1994) suggests that teachers employ the cushioning strategy daily to reinforce the importance of one or more shared norms for thinking and

learning. In his view, when students feel secure about the ways in which classroom interactions will proceed, their “natural curiosities are freed,” and they are better able to participate in “a classroom of active learning” (p. 61).

Thinking Through QQ: Figure 6.4 displays all of the norms introduced in connection with *Thinking Through Quality Questioning*. These are the authors' norms; we want you to think critically about the norms that will help you accomplish the goals *you* have for *your* students. You may choose some of the norms listed here; you may add others. You may reword to make them meaningful to your students, given their age, grade level, and other characteristics. Read our norms, critically evaluate them, and decide which you would like to use as a beginning point for the set of norms you desire for your classroom.



When all members of a learning community share these kinds of norms, a synergy emerges, as well as a press for questioning and thinking. Individual students who might not be disposed to thinking come under the influence of others in the classroom. Thought leaders of Harvard University's Project Zero express it this way: “The idea of a culturally supportive environment is that you see good thinking all around you because

Figure 6.4 Norms Associated With Thinking Through Quality Questioning

Purposes of Questioning
Use teacher questions to prompt your thinking, not to guess the teacher's answer. Use mistakes as opportunities to learn: This is a risk-free classroom. Use follow-up questions to think about and self-assess your first response and to modify or extend your thinking. Be open to wonder and ask, not just to know and answer.
Wait Times
Use the pause following the asking of a question to think and to formulate your response. Use the pause after your answer to reflect and add to or change it. Use the pause following a classmate's answer to compare it with your own. Be ready to agree or disagree and to add your ideas.
Participation
Listen with respect to other points of view in order to fully understand and learn. Share what you think so others can learn from you. Monitor your talk so others can contribute.

everybody is doing it. . . . It involves infusing values and norms into the culture and building expectations for good thinking" (Tishman, Perkins, & Jay, 1995, p. 49).

ADOPT A LANGUAGE OF THINKING

Analyze. Classify. Contrast. Hypothesize. Infer. Predict. Speculate. These are all strong thinking verbs, words that thought leaders in the field associate with classroom cultures that incorporate a language of thinking (Costa & Kallick, 2000, pp. 15–33; Perkins, 1992, pp. 107–110; Swartz, Costa, Beyer, Reagan, & Kallick, 2008, p. 85; Tishman et al., 1995, pp. 15–33). Likewise, there are nouns that resound in a classroom where thinking thrives: *assumption, criteria for judgment, consequences, data, evidence, reasoning, results*, and so forth.

A language of thinking promotes exactness and precision in expressing cognitive processing. The importance of oral language to learning permeates the thinking of the giants of educational theory, including Piaget, Vygotsky, and Feuerstein. These eminent researchers affirmed: "Oral language helps direct [students'] thinking processes. The fewer opportunities students have to verbalize and refine their thoughts, the less they can develop clear thought patterns allowing them to become independent, lifelong learners" (Hopkins, 2010, p. 83). When students learn the vocabulary of thinking, they are better able to communicate their thinking so as to make it visible to others in their learning community.

The cognitive processing matrix associated with the Revised Bloom Taxonomy (Anderson & Krathwohl, 2001; see Figure 2.3 in Chapter 2) is a good source for selecting words to incorporate into your classroom's language of thinking. Many teachers with whom we have worked use a word wall to display vocabulary associated with thinking. They are intentional

in teaching students the meaning of the thinking words and of incorporating them into their daily talk. Additionally, they encourage students to use thinking verbs and nouns to express the manner in which they are processing information.

We advance thinking not only through use of precise vocabulary, but also by selecting particular modes of expression, namely, by posing questions rather than enunciating facts or opinions. Francis Hunkins (1995), a longtime student of

To achieve thoughtful learning, we need to create a culture of thoughtful learning in the classroom. This is a matter of how teachers talk to students, students to teachers, and students to one another. And talk here is of course a matter not just of the words used but of manner and style and goals.

—Perkins (1992, p. 112)

questioning for thinking, advocates the use of questions as a "language of possibility" and argues that "viewing questions as part of a language of possibility allows both teachers and students to realize that thinking, reflecting, [and] participating in making meaning is a human process. . . . Questions

additionally serve as the building blocks for creating realities. As part of a language of possibility, questions allow discoveries [and] enable inventions [and] creations" (p. 144). The language of possibility oftentimes begins with such stems as *What if . . . ? I wonder what might happen . . . Can you imagine . . . ?* and *What are the implications of . . . ?*

Thinking Through QQ: Imagine that you've helped each student in your class develop a language of thinking. What kinds of changes would you expect in class discussions and other interactions?



CULTIVATE HABITS OF MIND

Earlier in this chapter, we argued for infusing norms for questioning and thinking into the classroom culture. Norms regulate interactions between individuals and within groups. Another set of value-laden guidelines supporting thinking is called habits of mind by some (Costa & Kallick, 2000; Swartz et al., 2008, pp. 17–22) and thinking dispositions by others (Ritchhart & Perkins, 2005, pp. 785–789; Tishman et al., 1995, pp. 56–64). John Dewey emphasized the “importance of good habits of mind that carry people past moments of distraction and reluctance” (Dewey quoted by Ritchhart & Perkins, 2005, p. 785).

Thinking through quality questioning incorporates habits of mind and thinking dispositions that include these shared characteristics:

- They positively impact all kinds of thinking.
- Like all habits, they evolve over time; however, when in place, they become automatic.
- Teachers can actively model and directly teach these dispositions.
- They motivate individuals to be thoughtful.
- A culture for thinking reinforces these habits or dispositions; in turn, they strengthen the thinking culture.

Although there are some slight differences in experts' lists of these habits or dispositions, those named in Figure 6.5 are included across all such lists that we have examined.

Good thinkers, after all, are more than people who simply think well when they think: They also think at the right times with the right commitments—to truth and evidence, creativity and perspective taking, sound decisions, and apt solutions. Views of thinking that bring this to the fore are often called *dispositional* because they look not just to how well people think when trying hard but to what kinds of thinking they are *disposed* to undertake.

—Ritchhart & Perkins (2005, p. 785)

Figure 6.5 Habits of Mind or Thinking Dispositions That Support Thinking Through Quality Questioning

Habit of Mind/Disposition	What It Looks Like in a Classroom
Pursuit of <i>Accuracy</i>	Students seek evidence to support their conclusions. They reflect on their thinking to self-assess and self-correct.
Intellectual <i>Curiosity</i>	Students ask <i>what-if</i> questions. They want to know why, not just what.
Empathetic <i>Listening</i>	Students listen to understand others' points of view. They look at the speaker with interest, think about what he is saying, and question to get behind what they may not at first understand.
<i>Flexibility</i> in Thinking	Students are willing to try out different types of thinking and different points of view.
<i>Managing Impulsivity</i>	Students think before speaking. They suspend judgment and reflect on their initial reactions. They seek to uncover all of the evidence as well as to hear a speaker's reasoning to its culmination.
<i>Open-Mindedness</i>	Students ask questions with real interest in another's point of view. They are open to continual learning about a topic.
<i>Perseverance or Persistence</i>	Students do not give up when confronting a difficult challenge; rather, they redouble their efforts and look to outside resources for assistance.
Taking <i>Reasonable Risks</i>	Students are adventuresome in their thinking. They are willing to move outside of the bounds of certainty to offer a new solution to a problem or introduce a new topic for investigation. They are not afraid to venture into new territories of thinking and learning.
<i>Reflection</i>	Students value time to think about their learning, their thinking, and their work products. They also reflect on the broader meaning of a subject of study, seeking relevance to their lives outside of the classroom.

Remember, the list of habits and dispositions presented in Figure 6.5 is not exhaustive. You may identify others that you believe to be of critical importance to your students and your classroom. As you reflect on and select habits of mind, be certain that they are habits that you own or that you are willing to cultivate. We cannot teach our students habits that we ourselves do not possess.

Beliefs about how learning occurs and beliefs about one's own cognitive abilities affect an individual's readiness to develop a particular habit of mind. For example, Carol Dweck (2006, pp. 6–7), a Stanford University professor, distinguishes between individuals who possess a fixed mind-set and those who choose a growth mind-set. Those with fixed mind-sets believe that their abilities are carved in stone, that their intelligence, personality, and other personal traits are givens. On the other hand, those with growth mind-sets consider change to be possible through hard work and experience. Dweck's research reveals that people with a fixed mind-set are unlikely to adopt perseverance or persistence when they confront a challenging thinking task; rather, they tend to quit. Those with a growth mind-set, however, believe that a step-by-step approach can lead to success. Other researchers have found that these traits or mind-sets are "independent of cognitive abilities but often affect cognitive performance greatly" (Ritchhart & Perkins, 2005, p. 786). The lesson for teachers appears to be twofold: (1) help students chunk out large tasks into smaller increments so that they can experience success step-by-step, and (2) seek to model and actively teach the value of perseverance in thinking.

Thinking Through QQ: Reflect individually or talk with a colleague about how you might use habits of mind to foster a growth mind-set among your students.



CELEBRATE BREAKTHROUGHS IN THINKING

Terry Deal and Kent Peterson's (2009) model for a strong culture includes vision, norms, rituals and traditions, and celebrations. Each of these components of culture is important, and each is addressed in this book. Chapter 1 presents a vision for a culture of thinking. Related norms are presented throughout Chapters 3, 4, and 5. Teachers can tap into each chapter in the book to identify processes they may wish to morph into rituals and traditions. Examples include use of the Revised Bloom Taxonomy (Anderson & Krathwohl, 2001) to challenge students to higher levels of thinking, graphic organizers to make thinking visible, or exit passes to prompt student summaries of daily thinking. In this final section, we suggest ways that we can celebrate student thinking so as to continue the motivation and momentum required to energize and revitalize a classroom culture for thinking.

Deal and Peterson (2009) cite research to argue that continuous improvement is most likely to occur when "small successes are recognized and celebrated through shared ceremonies commemorating both

individual and group contributions" (p. 11). They view celebrations as the fuel that keeps the fire of improvement blazing. We believe that creating a culture for thinking will always be a work in progress for teachers. Each day brings new challenges, and each year brings new students. We cannot rest on our laurels when it comes to culture-building.

So what types of celebrations are appropriate to celebrate thinking and questioning? Certainly, this depends upon multiple variables, including teachers' own personalities and what seems right to them, the ages and grade levels of their students, the personalities and other traits of their students, and the school culture within which they work. For that reason, this book does not provide a prescription for the right forms of celebration for you to use in your classroom. In order to be meaningful, however, celebrations must honor authentic achievements that are tied to individual and classroom goals for thinking and learning.

As teachers, we can facilitate the identification of classroom goals for thinking. These goals can focus on thinking outcomes and/or thinking dispositions. The important thing is that we assist the class as a whole in setting these goals. Likewise, as part of their metacognitive work, we can help individual students set their own thinking goals. Important for both classroom and individual goals are monitoring and making visible incremental progress toward these goals. As individual students and the class at large attain important milestones, we can stop and acknowledge the moment. The celebration does not need to be elaborate. It may be no more than a pause in our journey toward thinking through quality questioning.



THE ENDGAME

John Barell (1995) wrote a book titled *Teaching for Thoughtfulness*, which is a longtime favorite of ours. Barell conceives of thoughtfulness in both senses of the word: teaching students to think and encouraging them to be considerate and respectful one of another. Like Barell, we believe that these two types of thoughtfulness reinforce and support one another. When students adopt the norms and habits of mind associated with thinking, they commit to respect and care about one another's thinking and learning. In turn, if they respect and care about one another, they will listen in order to understand and think before they speak. We have attempted to paint a picture of a culture for thinking and learning that radiates this thoughtfulness.

Each of the previous chapters in this book concludes with a synthesis piece that relates a component of the Framework for Thinking Through Quality Questioning to student metacognition, engagement,

and self-efficacy. We make the case that quality questioning, in addition to driving learning and thinking, promotes these three important variables for developing independent and responsible learners. However, in order for these three components to be addressed through quality questioning, students must have trusting and respectful relationships with their peers and their teachers. They need to feel that their learning is important to others and that their thinking and contributions to their classroom communities are valued. Teachers who value student thinking and believe it to be the key to learning and achievement will cocreate with their students a culture of thoughtfulness, which nurtures quality questioning for all.

Thinking Through QQ: To what extent do you believe you are currently *teaching for thoughtfulness*? What steps can you take to be more intentional in this endeavor? What kinds of conversations can you imagine having with your students?

