

Creating Cultures of Thinking: The 8 Forces We Must Master to Truly Transform Our Schools

By Ron Ritchhart (Jossey-Bass, 2015)

S.O.S. (A Summary of the Summary)

The main ideas of the book are:

- ~ This book shows how to transform our schools and classrooms into places of true *learning* and *thinking*.
- ~ The key to this transformation lies in the *culture*, and the book outlines the 8 forces that shape that culture.

Why I chose this book:

Too often, schools lack the energy for true learning or have narrowly focused their curriculum to prepare for tests. This book not only argues that we should rethink the purpose and promise of schools, but it helps to show how to transform our schools and classrooms into the kinds of learning communities where deeper thinking is the norm.

Furthermore, when Ron Ritchhart describes a *culture of thinking*, I am struck by the sense of enthusiasm and excitement people feel about being part of such a group. Most schools are working to make learning more rigorous and to better prepare students for the future, but it is good to find out that joy can be a key part of the equation!

Also, I know many people are big fans of Ritchhart's work. His previous book, *Making Thinking Visible*, does a fabulous job of demystifying how to make instruction more rigorous by outlining 21 thinking routines. (See the book or The Main Idea's summary of it on my website.)

The Scoop (In this summary you will learn...)

- ✓ A deeper understanding of the vital role school and classroom culture play in shaping student learning
- ✓ How to utilize the following 8 cultural forces to transform our schools into cultures of thinking: expectations, language, time, modeling, opportunities, routines, interactions, and environment
- ✓ The transformative power of teachers developing the *new* expectation that school is about learning, *not* completion of work
- ✓ How teachers can maximize class time, not through activities like minimizing transitions, but through a radical rethinking of time
- ✓ The Main Idea's PD suggestions to incorporate the ideas in the book into your classrooms, schools, and districts

Introduction

Have you ever been a part of a true *culture of learning* in which the group's thinking was valued and promoted as much as each individual's? A learning group in which everyone felt challenged to think and advance their thinking? A group in which everyone was engaged in a clear purpose and felt connected and excited by their involvement? People who have been a part of such groups, have described strikingly similar characteristics of them:

- Everyone brought a high level of interest and passion to the group
- There was open communication, active listening, and everyone's input was valued and respected
- The leader was not only engaged and interested, but also a learner along with the rest of the group
- There was a constant questioning and probing of ideas

While there are amazing schools and teachers throughout the world, it is rare to find schools that exemplify this type of culture of learning. Too often, schools lack the energy for true learning or have narrowly focused their curriculum to prepare for tests. This book not only argues that we should rethink the purpose and promise of schools, but it helps to show how to transform our schools and classrooms into the kinds of learning communities where deeper thinking is the norm.

Ritchhart believes that *culture* is the hidden tool needed to transform our schools. Policymakers have focused on curriculum or standards as a means to create change, but all of these deliverables play out within the culture of the school and the classroom. Furthermore, while some see an embracing culture as something mysterious that only those extraordinary teachers in Hollywood movies can achieve, this book identifies and describes eight characteristics of cultures of thinking that *all* educators can employ. Below is an overview of these eight characteristics, or cultural forces, that help foster and sustain a culture of learning:

1. *Expectations* – We often talk about expectations in terms of our expectations for student behavior, neatness, or type of work. Here the focus is not on expectations *of* students, but rather, expectations *for* students. For example, the expectation that school will be about learning, not completion of work. Or that understanding, not acquisition of knowledge, is the goal. Or an expectation of student independence rather than dependence. All of these expectations shape the culture and the learning environment.
2. *Language* – Through language, teachers are able to name the thinking and ideas that are important. This helps students become aware of *their* thinking so they can begin to exhibit more of this type of deeper thinking.
3. *Time* – Because time is one of a teacher's scarcest commodities, teachers often find it difficult to give students the time they need to think – through wait time, time to gather thoughts before a discussion, or a chance to reflect on their learning.
4. *Modeling* – Many teachers limit themselves to the type of instructional modeling in which they explicitly demonstrate a new skill. But it is the more subtle kind of modeling we do to show how we are thinkers and learners that creates the culture in the class. Do we take risks, reflect, and learn from our mistakes?
5. *Opportunities* – Teachers typically talk about teaching lessons, activities, and assignments. But we can provide more powerful experiences for students by creating *opportunities* and inviting students to learn. What is the opportunity this lesson affords – will it push students to clarify a point? Challenge a misconception? Consider a different position?
6. *Routines* – While teachers are familiar with managerial routines to guide student behavior, we need to get teachers to think beyond behavioral concerns and to employ *learning* and *thinking* routines.
7. *Interactions* – More than anything, the interactions in a classroom are what shape its culture. *Listening* and *questioning* lie at the heart of positive classroom interactions and demonstrate a respect for and interest in student thinking.
8. *Environment* – How the furniture is arranged and what is on the wall clues you in to the type of learning the environment is set up to facilitate. Is the classroom designed for students to communicate, share, and discuss, or is the goal simply to see the board?

Each of these eight cultural forces is described in an upcoming chapter, and together, they serve as the tools for transforming both classroom and school culture.

Chapter 1 – The Purpose and Promise of Schools

How do we define a “great school”? We used to measure school by the results students got on exams, projects, essays, and assignments. In the past two decades, we have come to measure success based on external measures like standardized tests. But is this really why we send our children to school? The answer to this question matters, because what we value in schools shapes what we prioritize and give time to during the school day.

When the author speaks with parents, administrators, and teachers all over the world, he asks, “What do you want the children you teach to be like as adults?” Interestingly, he hears similar answers from very different people. People want children to turn into adults who are curious, empathetic, critical thinkers, passionate about something, avid readers, able to ask good questions, can problem-solve, are open-minded, can persevere, etc. Very few of the skills that appear on this list are those that are tested by standardized tests or are required for graduation. Instead, this list, along with what is reported by researchers, educators, and even the business community, informs a *new vision* of what we want for our students in the twenty-first century. Rather than developing a discrete set of academic skills and knowledge, we want our students to develop the type of broader characteristics that motivate learning. But how do we get there? How do we alter what schools are currently doing so they more successfully develop students as thinkers?

The story of learning impacts the culture of learning

The qualities listed above – such as curiosity, creativity, empathy – can be described more as *dispositions*. Dispositions are part of our character. They motivate our behavior and define who we are as thinkers and people. As Ted Sizer described, these qualities are the *residuals* of education – what is *left over* after we forget all those things we practiced and memorized for tests. In fact, these dispositions are not directly taught. We would never give a multiple-choice test on curiosity. However, they are learned through enculturation – through students being immersed in the type of culture that helps them develop these dispositions. As psychologist Lev Vygotsky says, “Children grow into the intellectual life of those around them.” We need to think about the type of intellectual life with which we are surrounding our children and our students.

Students internalize messages about what is important in education through *enculturation* -- the process of slowly internalizing – by interacting with the environment and those around us – what is valued. To fully understand what it is that schools value, we need to look at three prevalent *stories of learning* – first, the story we were told as students, next the current story of schools today, and third, the new story we want to be telling.

The stories about school that we were told as children impact how we interact with students today. When asked, people often describe school as a place where they were sorted into groups based on ability, where they were silent and listened to the teacher, where there were timed tests, and where they aimed to please the teacher. Of course there are stories of passionate and engaged teachers as well, but the dominant story is often not one of a place in which deep thinking and the development of positive dispositions was inspired.

Today, the story is not that different. Students who are deeply engaged with social media, blogs, and the Internet currently describe schools, and in particular test preparation, as something that has “hijacked classroom learning.” For many students, school has become irrelevant, meaningless, and boring. Compliant behavior is routinely rewarded, while creativity and open thinking are inhibited. Questions that require recall are far too often the norm rather than those that invite higher-order thinking.

Crafting and sending a *new* message about the purpose of education is no easy task. But before we jump into “how” we transform schools, we need more clarity around this new story. In order to develop a new vision of education, we need to break out of the mentality in which we tell ourselves, “Until the system changes, there is nothing we can do.” Instead, imagine education through a lens of ‘What ifs’ such as the following:

- What if schools were less about test prep and more about preparing students for a lifetime of learning?
- What if we measured success less by individual results and more by what the group accomplishes?
- What if students had more control of their learning and were really engaged rather than compliant?
- What if understanding were the goal rather than the acquisition of knowledge?

These are just a few examples of the *what ifs* we might explore to help us rethink learning in schools. But we need to go further and outline the *kinds of thinking* we value. Of course every educator says that he or she values thinking, and yet many continue to rely on memorization in classrooms. So what specific types of thinking might we value? Asking *questions*, making *connections and comparisons*, developing *explanations and interpretations*, examining things with *different perspectives*, *observing* closely, *reasoning with evidence*, and unpacking *complexities* are a few examples. Overall, this chapter introduced a new vision of quality education and the idea that it is through *enculturation* that students will learn this new vision. The next eight chapters will describe the eight forces we can use to help shape classroom and school culture to achieve this new vision.

Set of possible actions

- Make a list of 25 adjectives: 10 positive (engaged, interested, curious...), 5 neutral (fine, comfortable, coasting...), and 10 negative (tired, bored, frustrated). Have students select 3 to describe how they usually feel in school. What do these responses tell you?
- Use the appendix on p.307 to assess students’ views about a particular lesson. This survey asks students what they spent most time doing during the activity: observing, building explanations, reasoning, wondering, making connections, using different perspectives, reflecting, digging deeply, applying, reviewing, reading, listening, and practicing skills and procedures already learned.
- Go on a “learning message walk” and visit many classes for a few minutes each to get a general feel for students’ experiences. Gauge intellectual challenge, engagement, depth, and breadth of student participation.

Chapter 2 – Expectations (1st cultural force)

When we observe a class that is orderly, efficient, and predictable, we tend to think, “This is a teacher with clear expectations.” But sometimes these are the classes that also have few examples of deep thinking going on. In fact, the types of expectations that a teacher has for orderly behavior may *inhibit* the creation of a culture of learning. How is this possible? It has to do with how we define *expectations*. In an orderly and predictable classroom, the teacher has developed clear expectations *of* students – that is, clear expectations for their *behavior*. These types of expectations are more akin to strong requests or top-down orders. And to be clear, there is nothing wrong with communicating clear behavioral expectations for students, but there is a *second type* of expectation that has the power to shape teacher actions even more profoundly.

Research has shown that what teachers do in the classroom is much more the result of *their beliefs* than any set of learned practices. What they believe about teaching, learning, and schools affects most teachers’ actions. In the case of an orderly classroom, the teacher’s actions reflect what he or she believes. Is she giving students points or grades because she believes students must be coerced into learning? Is he keeping students busy and on task because he believes that this is what will lead to learning? Is she relying on memorization and practice because she believes these are the keys to mastering Algebra? A teacher’s belief system is so powerful that it can result in creating a culture of thinking or inhibiting it. Below are five belief sets that significantly influence teacher actions.

1. Focusing students on the learning vs. the work

The metaphor of *work* has longed been used in education – students as workers, classrooms as workplaces, etc. While the language we use to describe schooling might not seem important, it has a profound effect on how we understand our experience and respond to it. Take a look at the language we have been employing – students are expected to spend “time on task,” complete “worksheets” and “homework,” are given “work time,” and are taught to develop “work habits,” for which they receive “rewards.” Teachers are trained in “classroom management” and are held “accountable for results.” So what’s wrong with learning to be a good worker? The problem is that the focus shifts to work completion. Students ask, “How long does this have to be?” “Will this be on the test?” And the assumption is that completing the work leads to learning. However, the way a teacher frames the work has a lot to do with *how* the students complete it. Think about a time you performed a task -- for which you saw no purpose -- given to you by a higher-up. Chances are you got the task over and done with, just to please the supervisor.

Now imagine the opposite. When a teacher creates a *learning-oriented* environment, the focus is on the learning, and the work is simply the means to an end. What does this actually look like in a classroom? When the teacher introduces the assignment, he would highlight the learning rather than all of the details about the assignment such as when it is due and how long it needs to be. Also, the teacher would be more likely to provide choice in the assignment if the focus is on the learning more than the completion of a specific task. Then, in monitoring and supporting the students, the teacher would continue to focus on the learning when interacting with individuals and groups. Rather than asking, “Are you finished?” he would focus on listening for the learning, “What questions are surfacing for you?” “What does that tell you?”

2. Teaching for understanding vs. knowledge

Sometimes in education the words “understanding” and “knowledge” are used interchangeably and this leads to confusion. To help clarify, understanding *does* require knowledge, but it goes well beyond it. Knowledge can be thought of in binary terms -- as something you have or you don’t. However, understanding involves the actions you *do* with the knowledge – applying, performing, adapting, and so on. Research conducted at Harvard resulted in the Teaching for Understanding (TfU) framework which outlines four areas teachers can focus on to promote understanding:

- *Generative topics* – Focus the curriculum around big ideas worth understanding
- *Understanding goals* – Identify a small set of specific goals for understanding (vs. a list of what students should *know*)
- *Performances of understanding* – Design performance tasks for students to demonstrate skills and knowledge in novel contexts
- *Ongoing feedback* – Provide students with a steady stream of feedback and assessment information to help them improve

3. Encouraging deep vs. surface learning strategies

If teachers believe in focusing on *learning* and teaching for *understanding*, then the next question is *how* to get students there. The key is to develop a series of increasingly challenging and complex performances. Understanding does not occur at once. Instead, it should be demonstrated in small performances that build in complexity. In designing these performances, teachers should ask, *What will I actually ask students to do with the skills and knowledge they are acquiring that will develop their understanding and push it forward? How will I ask them to process it – that is to interact, use, manipulate, or change the knowledge and skills?*

4. Promoting independence vs. dependence

There is a link between teaching that is more controlling -- that is, more directive – and student dependence. When teachers are more controlling, their students tend to be more dependent on them. As a result, they have more trouble with problem solving, less resilience, and more of a focus on extrinsic motivation. In contrast, independent learners are more intrinsically motivated, more resilient, more engaged, have greater self-esteem, and are more likely to become lifelong learners.

5. Developing a growth vs. a fixed mindset

Psychologist Carol Dweck popularized the idea that how people cope with failure depends on whether they have a “fixed” or “growth” mindset. If teachers believe intelligence is fixed – that it is something you have or you don’t – then students will be unlikely to improve with effort. However, when teachers have a growth mindset then they believe their students can improve as a result of effort, good teaching, and persistence. Whether a teacher believes in a growth or fixed mindset has a profound effect on the teaching.

Set of possible actions

- Look at the five belief sets in this chapter and think about where the tensions are in each one for you.
- Pay attention to your students’ questions and your assignments over the next week. Are they about the learning or the work?
- As a leader, do a walkthrough and look for students’ questions and assignments. Are these about work or learning? Surface or deep?

Chapter 3 – Language (2nd cultural force)

In observing a teacher, you might not be aware of the language he is using. However, a teacher’s use of language can have a powerful influence in creating a culture of thinking. For example, a teacher might use the word *we* to convey the sense that the class is a community of learners. Or she might use the conditional tense – that *might be* one answer – to suggest there are multiple approaches to the problem. Overall, by adjusting the use of language in the classroom, teachers can align their word choice to their intentions to create the type of environment that supports a culture of thinking. Below are seven types of key “language moves” that facilitate a culture of thinking in classrooms and schools. There are certainly many other language moves, but these seven form a start.

1. The Language of Thinking

Telling students to “think” about the text they just read is often too vague to be helpful. Instead, it’s useful to identify and convey the specific cognitive acts we would like them to conduct. For example, perhaps we want students to consider alternative actions for the characters, make predictions, or raise questions about the characters’ motives. Using a language of thinking helps students learn how to think about their thinking. Further, it helps teachers identify the specific kinds of thinking they are looking for in a lesson. Once teachers identify these thinking skills, then they will be more equipped to notice and name when students are using these skills.

2. The Language of Community

When teachers want to convey that their classroom is a community of learners all dedicated to learning with and from each other in a cooperative manner, they use inclusive language. You will find frequent use of words like “we,” “our,” and “us.” This may not seem important, but research shows that our subtle use of pronouns reveals our motives, intent, and connection with others.

3. The Language of Identity

David Perkins identifies a key problem with typical school learning – “aboutitis” – that we teach *about* a subject rather than engaging students in authentic learning. Much of the language in classrooms suggests that students will learn about a subject (“Today we are going to learn about chemical reactions”). Instead, we need to help students see themselves as historians, rather than learning about history, or see themselves as literary critics, rather than learning about literacy. Of course students will not automatically become poets, scientists, and mathematicians because we change our language, but expert teachers find ways to help students see themselves not as outsiders looking into a subject, but rather as those authentically engaging in that subject.

4. The Language of Initiative

Students should leave school believing that if they act strategically, they can accomplish their goals. This is sometimes referred to as “agency.” Teachers can help students develop their sense of agency by using language that reinforces the idea that if they are planful, they can influence the outcome of a situation, “If we do it this way, then...” “Would it work if...” This helps them see that there are different options and that they must weigh the consequences of each one. The language of initiative helps foster independence.

5. The Language of Mindfulness

To help students develop mindfulness – a state of being open to new ideas and possibilities – teachers use conditional language, “What *might be* going on in this picture?” Using conditional language helps students think about a variety of answers and even helps students get to correct answers more frequently. In one study, a group of students was given instructions using conditional language, “This is *one way* to solve the equation...” and another group was given more absolute instructions, “This is *the way* you solve the equation...” The group given the conditional instructions was more likely to use prior knowledge and to find accurate solutions than the absolute group. Using conditional language encourages students to think critically rather than just accept what they are being told.

6. The Language of Praise and Feedback

Most classrooms are filled with the language of praise, “good job,” “well done,” “excellent,” and more. But teachers need to be careful for two reasons. First, praise is *not* the same as feedback. For feedback to be effective, our words need to relate directly to the *learning* – that is, identify what has been done well and what still needs to improve. For maximum impact, our feedback needs to be specific, descriptive, and informative. Secondly, using praise can inadvertently have a *detrimental* effect on learning if used incorrectly. Carol Dweck says that when we praise the *person*, “You are so clever,” we encourage a fixed view of intelligence. To encourage a growth mindset, praise the efforts and actions, “You worked really hard” or “I can see you pushed yourself.”

7. The Language of Listening

Listening is one of the most powerful ways to show students we respect and are interested in their thinking. One of the ways we can demonstrate that interest is through our language. We can do this by asking students to clarify points, asking authentic questions, and by paraphrasing what they say. We can also ask students to take their ideas to the next level, “How do you think that idea would play out in another context?” Or invite others to join in, “Joaquin, what do you think about what March just said?”

Set of possible actions

- Become more aware of your language moves (audiotape a lesson). Do you use conditional language? Which pronouns do you use?
- When planning a lesson, list the key thinking moves you want students to make, then name and notice them in class.

Chapter 4 – Time (3rd cultural force)

Classrooms today are busy places, and this chapter offers no magic bullet to resolve the pressures educators feel in schools. However, there are approaches to *time* that can make you feel more in control and proactive in effectively using time to facilitate the creation of a culture of thinking. Below are five approaches to help you better leverage the time you have.

1. Recognizing time as a statement of your values

Stephen Covey states that if we want to change the results, we don’t *start* by changing our behavior, we start by changing our perceptions. If we believe teaching is mostly about presenting information and having students memorize, then we organize class time around these beliefs. If we believe getting through the curriculum and keeping students quiet is the priority, then we give time to support these ideas. There are significant differences in how teachers spend their time. How much time are the students spending in discussion, making connections and considering evidence? Rather than simply giving students “time to talk,” has the teacher spent time teaching specifically what goes into an effective discussion so everyone contributes and contributions are of quality? Has the teacher structured opportunities for small-group discussion that get more students engaged and help with building community in the class? A teacher’s values come across not just in the time allotted to *planned* activities, but also in the in-the-moment decisions about time: Do I allow this discussion to continue? Do I take the time to review the material the students didn’t read? Do I allow students to experiment, raise questions, and get lost along the way or do I just *give* the information? Should I pursue this student’s question because it is interesting even though it is off-topic? All of these decisions about time reflect the teacher’s values and priorities.

2. Learning to prioritize and always prioritizing time

All schools have “allocated time” for classes. They also have “instructional time” – time when instruction (not lunch, passing time, etc.) is supposed to happen. However, how much of that time is actually devoted to “academic engaged time” in which students are actively learning instead of waiting for learning or being disengaged during the learning? Studies show that secondary students spend more of their time in noninteractive activities – such as listening, taking notes, and doing seat work – rather than interactive activities. In addition, elementary students spend more of their “reading” time doing nonreading activities like completing worksheets.

There are a number of strategies to help minimize noninteractive activities. For example, one teacher sets a timer for 8 minutes at the beginning of class so he doesn’t ramble on when setting up the class and giving directions. Other teachers minimize disruptions by establishing routines to reduce transition time and to accomplish everyday tasks. While these strategies do work to *minimize* noninstructional time, to truly *maximize* the rest of the time, rather than relying on a particular strategy, teachers need a radical rethinking of time. For example, rather than thinking, “How do I as a teacher choose to use my allotted class time to accomplish my goals?” imagine the changes that would result from asking, “How will I enable my students to use their time in class to maximize their thinking?” This shift accomplishes two things: first, it shifts attention from the teacher to the students, and second, it places an emphasis on one’s *priorities* rather than on one’s *schedule*. To help make this shift, teachers might consider the following questions to help them identify their core principles about teaching and learning so they can make time for these things:

- If you had your students for just 6 weeks, what would be the single most important thing you’d want them to understand?
- Thinking about last year, what are the things you wish you had spent more time developing?
- From your teaching experience, what are the keys to motivating learning and creating engagement around deep ideas?

In building a culture of thinking, below are a few key principles to aim to give time for in schools and classrooms:

- ➔ Learning is a consequence of thinking.
- ➔ Coaching and feedback propel learning and create momentum.
- ➔ We learn when we are challenged and pushed in novel ways to perform just beyond what we can do alone.

3. Giving thinking time

There is no way around it; complex thinking takes time. While students can give *quick* answers when asked to recall something, to engage in thorough cognitive or creative processing, students simply need more time. However, research that began 50 years ago shows that when teachers ask students questions, on average they wait less than a second for a response. This is known as Wait Time 1. Then, after the student has responded, the teacher typically waits less than a second to react, comment, or call on another student (Wait Time 2). Furthermore, 20 years of research has shown that increasing wait time to more than three seconds increases the length of student elaboration, results in greater use of evidence and reasoning, increases student questioning, leads to more students listening

to and responding to one another, and results in greater achievement on complex written assignments. In addition to the concept of “wait time” before calling on students, “think time” is also beneficial. Think time includes time for students to digest information before responding, time to think before writing or accomplishing other tasks, and time before other students jump in and respond. And calling it “think time” emphasizes what it is that students should be doing during this time—thinking!

4. Investing in time to make time

When we feel pressed for time, we often try to squeeze more activities into class. However, research has shown that doing more and doing it faster is *not* necessarily better. Multitasking has been exposed as a myth. Research shows that when we multitask we remember the information less well or not at all. In one study, although students who multitasked appeared to learn information perfectly well, when it came time to transfer what they learned to new contexts – really the goal of education – students who multitasked were far less successful than their peers who focused more deeply on one thing at a time. This clearly has implications for how teachers plan for their instructional time.

5. Managing energy, not time

Feeling stressed is often linked to feeling that there isn’t enough time. So when we feel stressed we think about how we could better manage our *time*. However, this rarely alleviates the stress. Instead, we need to understand that being stressed is often an indication of the depletion of our resources – physical, mental, emotional, or spiritual. If this is the case, it is far more beneficial to think about managing one’s *resources* to recharge. Therefore, it might be helpful to think more about how *energized* we feel as a result of engaging in different activities. How often do we complete tasks that seem urgent, yet which leave us feeling depleted? One way to examine our *energy* rather than our *time* would be to reflect each day for a week by assigning activities to one of the categories below:

Green = “I came out of that activity feeling energized. For the energy I put in, I got a net gain. This was time well spent.”

Yellow = “This was neutral for me. I didn’t feel it depleted me, but I also didn’t gain energy from it.”

Red = “This was an energy vampire. I had to summon my energy to keep going. I would have skipped it if I could.”

One example of this is a teacher who was exhausted by writing feedback on all of his twelfth-grade students’ papers each week. Furthermore, he doubted whether the students even read the comments. He decided to change the way he gave feedback on student writing so that he met with each student individually rather than writing comments on each paper. Looked at through the lens of time, this teacher clearly spent more time meeting with the students, *but*, because he enjoyed this time and felt it was more productive, through the lens of energy, he was better off with this new approach.

Set of possible actions

- Conduct a time audit of your class (videotape it or have someone observe). How much time is spent in lecture, transitions, discussion, independent work, groupwork, etc.? Gather data over an entire week for the most accurate info.
- Practice increasing your wait time (both 1 and 2) and see if student responses are longer and more thoughtful.
- Gather student perceptions of how you spend time. Give students a list of possible activities (lecture, transitions, etc.) and have them allocate different percentages of time. Then have them answer, “To help me learn, I wish we spent more time on...”

Chapter 5 – Modeling (4th cultural force)

Teachers often think of *modeling* as standing up in front of the class and presenting a skill or procedure they want students to learn. However, modeling can be much more than this. In addition to explicit modeling, teachers implicitly model through their everyday actions. They can also model who they are as thinkers and learners. For example, one teacher paused in the middle of a lesson to describe a late-night awakening that resulted in her capturing her thoughts in her journal at 2 am. She took her journal and placed it under the document camera to share the contents of her thoughts at that time. This teacher is modeling far more than simply *how* to write in a journal. She is sharing the authentic way she uses her own journal as a means of capturing her own thinking. She models the thinking and writing in the journal and her vulnerability in waking and worrying at night. Teaching encompasses far more than the delivery of information. Explicit and implicit modeling play a powerful and complex role in student learning. Understanding the practices below can help teachers tap into what is often a hidden dimension of teaching.

1. Dispositional apprenticeship

More than presenting content, teachers are role models for their students. We inspire. We teach by example. We demonstrate what it means to be a thinker and a learner. This means revealing to students those dispositions that make a successful learner. We show them that thinking is messy. Rather than covering it up when we don’t know something or we make an error, we model making mistakes and reacting to those mistakes in a way that is productive. Through this modeling, students learn that thinking and learning isn’t about being perfect, it is about constant assessing, revising, and reflecting. Providing this type of modeling for students is immersing them in a *dispositional apprenticeship*. Through being in our classes, students learn the *traits, values, and characteristics* of a mature learner and thinker. Some of what students learn occurs on a much more subliminal level, as Ted and Nancy Sizer capture in their aptly named book, *The Students Are Watching*. In fact, students may learn more through informal, ongoing, and even involuntary observation of experts rather than through more direct teaching methods. This is why modeling is such a powerful teaching tool.

2. Cognitive apprenticeship

It is important to note that a *cognitive apprenticeship* model is about more than learning new skills. It is also about understanding how experts think and work through difficulties, how they make judgments about quality, how they identify problems, and how they make decisions. However, these actions are not so easily observed, so it is the job of the teacher to make them more *visible*. Some teachers share what it is they are doing as they read, write, or solve problems through a “think-aloud” or “real-time modeling” in which they narrate the thinking and learning going on in their heads. This helps to both illuminate and demystify the thinking process for students. Despite the effectiveness of this approach, it is much less common in middle and high schools than in elementary schools.

3. Gradual release of responsibility

In any apprenticeship model, the goal is for the teacher to slowly release responsibility until the student can be independent. This usually happens in three steps. First the teacher identifies those cognitive processes the students need to learn. Then he models those strategies and makes his thinking visible to students. Then after a bit of coaching and scaffolding, the teacher reduces his supports until the student can do the thinking independently. It helps to have thinking routines or structures that students can use on their own.

4. Interactive modeling

Keep in mind that *too much* modeling of skills and procedures can result in students simply imitating the teacher’s product. Almost every elementary teacher has had the experience of modeling an art activity and finding the majority of the class imitated her example. To avoid this, it helps to model the process rather than the product. Or, provide multiple examples of products, each with a different strength. If what is being modeled is complex, rather than a simple “show and tell” approach, plan time for discussions of what was modeled, then have a student or group of students model what the teacher presented, and give plenty of time for practice and feedback.

Set of possible actions

- Allow yourself to be authentic and share with students what you do when you struggle as a thinker.
- Pair up with a colleague or view a video of yourself and determine and discuss the dispositions you were displaying.
- Practice a think-aloud with something difficult.

Chapter 6 – Opportunities (5th cultural force)

The language we tend to use to describe what we do as teachers includes items like: “planning units,” “writing lessons,” “preparing activities,” and “assigning work.” However, this language fails to capture what it is that great teachers do. They actually *create opportunities* – opportunities to engage, to challenge misconceptions, to delve deeply, to explore, to create meaning, to think. Rather than focusing on the product, it is more useful to focus on the process if we want to help students truly *learn*. After all, it is what the student is *doing mentally* that truly matters. When we think about “opportunities” rather than “work”:

- It directs our attention to student *actions* rather than student *products*
- It helps us focus on building *learning-oriented* rather than *work-oriented* schools

This chapter includes three case studies of teachers who have provided opportunities for their students rather than tasks. These case studies are rich and nuanced, but there isn’t space here to capture those examples. However, here are a few details about one of those case studies. David’s ninth grade class is focusing on migration. There is a textbook with a list of questions at the end of the chapter on migration, but the questions are low level. While there is nothing wrong with students learning basic information, simply looking at a page to find information won’t *cause learning*. Instead, students need to *do something* with that information. In contrast to the textbook, the teacher has written larger questions on the board, “Why do people migrate?” and “What are the impacts of migration?” The teacher is having students use an iPad app called VoiceThread to create a short migration story (VoiceThread allows you to make a voice recording over documents and include animations and highlights.) While many classes might conduct a project like this and the students would enjoy finding pictures for their VoiceThread stories and would love getting to use an iPad, what is different in this classroom is that the teacher does not simply focus on the product. Instead, he keeps students focused on the *thinking* they need to do. On chart paper the teacher writes, “Integrating Analysis into your Story” and reminds students that they are geographers and need to think like geographers. Because “analysis” is a vague term for most ninth graders, he breaks it down, “How do geographers measure the challenges and benefits of migration? When, where and how were there positive and negative impacts of migration? What language do geographers use?” These questions provide a framework to help students focus on the analysis. All of this ensures that students are not just *reading about* migration, but they are interacting with the content, and this is what produces learning. The learning opportunities in the three case studies in the chapter have several qualities in common that make them engaging and rich learning experiences for students. Below are some common criteria to think about in designing *opportunities* for students.

Categorizing – Learning opportunities can be categorized based on their duration, format, and complexity. These learning opportunities can take place during a brief moment, a task, a project, or a long-term event. However, even a larger project – like the migration project above – requires that you have moments and tasks that support it. The format can range from whole-class discussions and small-group work to lectures and watching videos. What is important to make it a learning opportunity is how the format is *implemented* – are students being challenged to think? The final category concerns the *complexity* of the learning opportunity. Research shows that the majority of class time is focused on low-level reproductive work. To successfully create an opportunity we need to require original responses, deep learning strategies, challenge, and creativity.

Recognizing the characteristics of challenge opportunities – Teachers can use the following four characteristics in designing a challenging opportunity. First, it must require a *novel application*. Students need to apply their knowledge and skills in new situations. This is called transfer – the holy grail of teaching. When students are required to organize, interpret, evaluate, or synthesize their knowledge to create something new, this deepens their understanding. Second, students must build their understanding through *meaningful inquiry*. It is not enough to simply apply the new knowledge, but students must also develop new and personal insights. Third, we must emphasize *effective communication*. Students must learn the importance of using the language of the discipline to express, justify, and communicate their thinking. Finally, students must perceive the learning to be of *worth*. Students often produce work they consider to be of little value. Allowing choice and personal connections adds to the sense that the learning is worthwhile.

Realizing how we make challenging opportunities work – It's true that it takes time to create challenging opportunities rather than using worksheets and prepackaged curricula. However, this is part of the joy and challenge of teaching. Furthermore, rather than creating these opportunities from scratch, consider “bumping up” an existing task. By asking questions such as: “How can I involve students in more thinking in this situation?” or “Can this task be opened up (so there aren't a lot of constraints) or extended so it is set in a more engaging context?” or “Is there too much scaffolding or structure that I can remove?”

Set of possible actions

- Rate the tasks in a unit using the 4 criteria: novel application, meaningful inquiry, effective communication, and perceived worth.
- Take a task with a good starting point and “bump it up.” With a colleague, think about how to extend it so students think deeply.

Chapter 7 – Routines (6th cultural force)

What is a Thinking Routine?

In helping schools develop cultures of thinking, Ritchhart and colleagues often begin with thinking routines. However, because teachers already often utilize a number of routines in their classrooms, it is helpful to distinguish *thinking* routines from other types of routines. Many classroom routines are for *management* purposes. Management routines aim to keep classes running smoothly through the use of control and order. These include routines for getting the students' attention, distributing materials, and having students line up quietly. *Thinking routines*, on the other hand, aim to help students develop a pattern of regularly using certain cognitive strategies. Thinking routines provide the scaffolding and the specific directions so students know what to do when we ask them to “think” or “understand.” For many students, it is too vague to direct them to “read this passage and understand it.” By incorporating a routine to use with the reading (such as: (1) look for connections to what you already know, (2) identify how your understanding has been extended or pushed by this reading, (3) raise questions and challenges for further explanation) this helps to break down what the teacher means by “understanding.” Once students are taught these routines, they can use these tools independently to develop their thinking. The goal is not for students to learn the routine, but for them to develop the thinking required by the routine.

There are a number of benefits of *thinking* routines. First, they help teachers focus on the thinking they want students to develop, rather than the activity. Then, the routines provide specific practices teachers can implement to develop a variety of types of thinking. Further, although thinking is an activity performed internally, these routines help make the thinking that students do more *visible*. Finally, thinking routines help teachers provide the structure and scaffolds needed for students to *develop* their thinking.

The chapter provides examples of teachers implementing one particular thinking routine called Claim-Support-Question (CSQ) in a Kindergarten, second grade, fifth grade, and secondary classroom. These examples show students first making a claim (an interpretation or a theory) about a topic being explored, then identifying support for their claim (the evidence), and finally raising a question related to their claim. Due to space constraints, these examples are not included here, but for a more thorough understanding of the thinking routines Ritchhart and colleagues have outlined, see the book (and/or The Main Idea's summary), *Making Thinking Visible*, which describes 21 thinking routines to help facilitate a culture of thinking.

Chapter 8 – Interactions (7th cultural force)

When asked about their most significant *educational* experience, most people rarely mention an idea or a concept, and instead, remember the *personal connections* they experienced. Whether it was through mentoring, being a part of a group, or engaging with another person, it shows the vital role that *relationships* play in learning. We have long known that relationships help motivate and engage us in learning. Signs of teachers who successfully build relationships in their classrooms are palpable when you watch videos of these teachers – they smile, listen, laugh, sit beside their students, celebrate successes, and are genuine. However, recent research has shown that strong relationships in the classroom are much more than a nice addition. In fact, strong teacher-student relationships actually boost student achievement, in particular, critical thinking. John Hattie's exhaustive review of the research shows that teacher-student relationships are among one of the top practices highly likely to affect learning (with an effect-size score of .72). This chapter explores some of the key practices that support teacher-student interactions as well as interactions among students. Below are some suggestions for ways to shape and build those interactions through roles, patterns of discourse, and asking good questions.

1. *Shaping Interactions Through Roles*

If we want students to interact with each other and the teacher in ways that are different than the traditional classroom, we need to provide the scaffolds and the structure for them to participate in new ways. For example, in one special education class in which students had traditionally been hesitant to participate, one teacher designed roles to help facilitate students' reading comprehension and language skills. Roles included: summarizer, visualizer, vocab master, connector, and questioner. In a game they played, students got points for citing evidence, connecting to others' ideas, and explaining their thinking. This approach boosted student confidence, helped students feel ownership over the thinking skills, and also changed the way they interacted with others by encouraging them to listen to and build on the ideas of others.

2. *Shaping Interactions Through Patterns of Discourse*

Traditionally, most questions teachers ask are the review-type of questions that solicit recall, "Who can tell me...?" or "What do we call ...?" When teachers ask these types of questions, they tend to follow a pattern: the teacher asks a question, the student responds, then the teacher evaluates the student's response (QRE). The problem with this type of interaction – which resembles a Ping-Pong match – is that it usually focuses on lower-order thinking, and it leaves out the majority of the class. Unless we develop a different pattern of discourse, this pattern of questioning will prevail. Instead, relying on the thinking routines (introduced in Ritchhart's earlier book) can help provide an alternative. For example, one high school teacher wanted his students to explore the question, "Evaluate the impact of the Khmer Rouge on Cambodia from 1975 to 1979." The first thing he did was to give his class five minutes to free-write their ideas about this topic. Then he engaged them in the Micro Lab Protocol (from that earlier book) – a simple discussion structure for groups of three students. In this protocol, each of the three students shares her ideas on the topic without interruption for two minutes. This ensures that everyone shares their ideas and that participants listen because they know they will need to discuss next. For the discussion, the teacher clarifies that he doesn't want them "popcorning," he wants them "ice-cream-coning." These are terms he has introduced earlier that describe the types of interactions for the discussion. Popcorning is when ideas are simply tossed out and ice-cream-coning is when students build on each other's ideas like layers of ice cream scoops. To help students discuss in a more interactive way in which they build on each other's ideas, some teachers provide actual sentence starters they can use:

- Connecting to what _____ said...
- I want to agree/disagree with _____, because...
- Piggybacking on _____'s idea...

These types of structures and protocols deliberately provide a pattern of discourse different from the QRE pattern we often use.

3. *Shaping Interactions Through Questions*

If you think about it, questions are one of the primary ways teachers interact with students in classrooms. The questions we choose to ask build the culture in our classrooms, and also connect students, teachers, and the content together. Although we all want to ask good questions, teachers rarely plan these questions in advance. Instead, our questions emerge from our goals and expectations (Chapter 2). It is helpful to be aware of the different types of questions teachers ask:

- Review questions – mostly to recall knowledge and procedures
- Procedural questions – to direct class behavior, "Does everyone have a pencil?"
- Generative questions – to spark inquiry, "How do totalitarian regimes such as the Khmer Rouge gain power?"
- Constructive questions – advance understanding of big ideas, "What connections can you make after what you've heard?"
- Facilitative questions - ask students to explain or elaborate their thinking, "What makes you say that?"

Classrooms with cultures of thinking tend to be dominated by the last two types of thinking. Together, asking good questions, developing new patterns of discourse, and providing roles that structure learning, positively shape the interactions of our classrooms.

Set of possible actions

- Name the particular intellectual hats students need to wear for a learning situation, and create roles.
- Analyze the types of questions you ask using the list of five types in the chapter.
- Change the hands-up norm to break the QRE pattern. Try a random method to call on students or use your eye contact alone.

Chapter 9 – Environment (8th cultural force)

From *Leave It to Beaver* in the 1957 to *Glee* in 2009, the image of a classroom has not changed much. Maybe whiteboards have replaced blackboards, but students still learn within four closed walls, at desks or tables facing forward, with a teacher's desk at the front. The physical design of classrooms developed at a time when we had a factory model of schooling in which all students learned the same content, at the same time, in the same way. A forward-facing orientation of desks in rows helped with efficiency when we believed that learning was an individual endeavor and students were to receive knowledge from teachers. It is time to rethink this physical design to support a new way of teaching and learning. This chapter introduces three case studies of classrooms in which the teachers design the physical space to better facilitate learning, foster new ways of interaction, and support a culture of thinking. Due to the space constraints of a summary, those cases are not included here, but each of the cases considers four elements, important to classroom design, described below: visibility, flexibility, comfort, and invitational quality.

1. Visibility

We understand the benefits of making our students' thinking visible. It helps the teacher know how students are developing their thinking so they can design next steps in instruction. Further, it benefits students to know how and what other students are thinking when they work collaboratively so they can build on each other's ideas. Teachers make student thinking visible when they ask questions, and also when they capture, record, and document it. Efforts to make student thinking visible can be facilitated or hindered by the physical classroom space. For example, to help students *see* what other students are working on, we can arrange desks so students can see each others' work, or create space for students to walk around and see what others are doing. This contrasts with the typical set-up of isolated desks in rows which literally hide student work from one another. In addition to classroom arrangement, documentation also makes learning and thinking visible. There is no single way to document student learning. Teachers have used observation notes, partial transcripts of conversations, audiotapes of discussions, photographs or videos of learning, chart-paper brainstorms, and screen captures from interactive whiteboards. While teachers may be used to posting student work on the walls, this is *not* the same as documenting the thought, questions, conversations, or imagination that went into those products. Rather than the typically posted products, this documentation should serve to *inspire* learning, *invite* students to interact with and reflect on what is displayed, and to *inform*. To help determine if the products in your classroom document student *learning*, consider these questions:

- What can a visitor to this space tell about the learning that is happening in this classroom?
- What can that visitor tell about the individual learners, not just the teacher, who inhabit this space?

2. Flexibility

Because learners and learning are dynamic, it hinders learning when a physical space is static. Having flexible, easy-to-move furniture helps make a space more responsive to student learning needs. For example, small trapezoidal or rectangular tables allow for a variety of configurations, whereas round tables really only provide one option for arrangement. Teachers and students should be able to move around furniture quickly and easily without outside help. Furthermore, we can break our reliance on the front-facing orientation of classrooms. Classrooms have always been oriented to face a board, but now with the advent of IdeaPaint, the whiteboard itself can be on any wall, floor to ceiling. To add further flexibility, some teachers set up their rooms with different learning zones, such as a reading area defined by a small throw rug. Teachers have created spaces for a wide range of learning such as play, presentation, collaboration, individual, reading, and lab zones. The final aspect of flexibility has to do with the students themselves. Sitting still can cause fatigue. Teachers can create space for students to move around. Movement doesn't always have to be large, perhaps students can use standing desks, adjustable-height tables, or be allowed to lie on the floor or stand up to work.

3. Comfort

Student comfort is connected to the light, color, temperature, and noise of the classroom. Research does not point to one perfect balance of these items, but it does show that learning suffers if there is too little light or no natural light. It is often not under a teacher's control, but rooms that are too hot lead to sluggishness and those that are too cold leave students with less energy to focus. While the open-classroom movement was too noisy, teachers can still have an open space and create zones for different activities. There is also debate about color, but students prefer "less boring" environments and monotone classrooms result in more fatigue.

4. Invitational Quality

Students spend six to ten hours a day in classrooms. Given this large chunk of time, shouldn't we make classrooms more home-like, that is, more inviting and comfortable? At a minimum, they shouldn't look like prisons. At best, they might include throw rugs, soft lamps, books, and student artwork. In some of the cases in the book, teachers created a sense of surprise with hanging mobiles and an entire wall to write on. Other schools have grand examples of whimsy such as one that includes a spiral slide between the first and second floor, and another that plays jazz in the bathrooms. On a more modest level, others include inviting phrases and quotes on the walls. Ask yourself whether visitors coming to your classroom would feel that this is a space in which they would want to learn.

Set of possible actions

- Go on a "ghost walk" – a tour of classrooms when students are not present. Use the criteria on the second page of this protocol to see what messages are sent about teaching and learning via the physical space: nsrfharmony.org/system/files/protocols/ghost_visit.pdf
- Make form follow function. Ask what you are designing your classroom for and how your space can reflect this.

Chapter 10 – Moving toward Transformation

"Cultures of thinking" is not a program one can simply implement and be done with. It requires an ongoing process of rethinking a school's approach to educating its students. While this process usually does have a starting point – most teachers begin by implementing the thinking routines – true transformation is a more holistic and complicated process. To illustrate how that process might play out, this chapter outlines six case studies of transformation in schools, districts, and systems. Those case studies are not included here, but they all involve four key areas school leaders must attend to for to successful transformation:

1. A clear purpose or vision (What are we striving for?) built on theories, values, and principles
2. The tools and practices to help achieve that vision (What practices will help us get there?) along with their application
3. The facilitation of ongoing learning (How will we support our ongoing efforts?) to use the tools to implement the vision
4. The growth in both students and teachers (What does progress look like?) to identify progress and next steps.

THE MAIN IDEA's PD suggestions for cultivating a culture of thinking

Note that the questions at the end of each chapter in the summary (and there are more in the book) are also an excellent place to start to cultivate a culture of thinking in classrooms and schools.

Another suggestion for PD: Since schools often start with the Thinking Routines, consider distributing The Main Idea's summary of Ritchhart's *Making Thinking Visible*, and using the PD ideas in that summary with them as well.

I. Discuss Beliefs About School

Research has shown that what teachers do in the classroom is much more the result of *their beliefs* than any set of learned practices. What we believe about teaching, learning, and schools affects most of our actions in schools. For this reason, the activities below help teachers and leaders explore their *beliefs* about school.

A. The 3 Stories of School – What do we value in schools?

What we value in schools shapes what we do and how we spend our time. With a group of teachers (or leaders or parents), discuss the story of school we understood as children, the story of schooling now, and the potential for a *new* vision of what schools could be. Use a version of this routine from Ritchhart's earlier book: **Generate-Sort-Connect-Elaborate (GSCE)**:

Give each person 3 pieces of paper. In the center of each, write each of the following in a circle (to create a concept map):

My experience in schools as a student

The experience of students in schools today

What you would like the children you teach to be like as adults

Then give people time to generate a list of words or ideas they associate with each central idea. For example, in thinking about their schooling experience as children, they may write, “silent” or “timed tests.” Then have them draw lines to connect the different ideas on their papers to one another so they can sort their ideas and come up with themes about these three experiences. As a full group, discuss the themes that emerge.

B. What Ifs

We are often limited by thinking that there's nothing we can do to change the educational system. Instead, conduct a discussion that allows people to open up their understanding of what school *could be*. Using the **Chalk Talk** routine (from Ritchhart's earlier book) to have a group of staff members, students, or even parents discuss new ideas about schooling.

1. Take 4 pieces of newsprint or other large paper, and write each of these questions on one piece:

- What if schools were less about test prep and more about preparing students for a lifetime of learning?
- What if we measured success less by individual results and more by what the group accomplishes?
- What if students had more control of their learning and were really engaged rather than compliant?
- What if understanding were the goal rather than the acquisition of knowledge?

2. Conduct a silent **Chalk Talk**:

Divide everyone into 4 groups and have each group stand around one of the pieces of paper. Invite everyone to read their “What If” prompt, then think about and write their reactions, ideas, and questions on the paper for 5 minutes silently. After this time, have the groups rotate to another piece of paper and continue the silent routine for another 5 minutes. After the groups have rotated to all the questions, have them return to their original table and read the responses there. Then discuss: What were the common issues? What questions arose? How did everyone's thinking develop as they went from table to table?

II. Self Assess: How much do you *already* promote a culture of thinking at your school?

As a leader or a teacher, there may be a lot you are *already* doing to promote a culture of thinking in your classroom and school. Conduct a self-assessment of your strengths in the 8 areas introduced in this book. Ritchhart has two very thorough self-assessments you can use (one for leaders and one for teachers) in the Appendix. Below is an excerpt from the *leader's* self-assessment. Rate yourself from 1 (no one would notice) to 5 (it is apparent to all).

Eight cultural forces that support a culture of learning	Rating
1. Expectations: I communicate that our school values thinking; I emphasize that the job is about professional learning not just test scores and doing the work; I make decisions based on how they will impact <i>student learning</i> ; and I praise teachers when they develop students as <i>thinkers</i> , not just test takers.	
2. Language: I give specific feedback; I invite others into the conversation by using conditional language (e.g. “might be”); I name the specific thinking I observed in debriefing classroom observations (e.g., “I noticed you got students to evaluate...”); and I use inclusive language (e.g., “we” and “our”).	
3. Time: In meetings I give people time to think through ideas; I respect people’s time and make sure meetings have a clear focus; and I monitor the amount of time I speak so I don’t dominate meetings.	
4. Modeling: I try to be present at events, meetings, and groups to show people that I value what they are doing; I demonstrate my own curiosity, passion, and openness to new ideas; and I model the behaviors and interactions I want to reinforce in others.	
5. Opportunities: In meetings I focus people’s attention on the mission and core issues; I try to create opportunities for staff to direct their own learning rather than being dependent on me; I create opportunities to collect evidence to inform our work; and I provide opportunities to reflect on our progress.	
6. Routines: I utilize protocols, thinking routines, and other structures to help groups discuss, reflect, and problem-solve; I look at the way I lead groups and determine if any patterns or structures are <i>not</i> effective; and I try to streamline the work with more efficient systems so we can spend more time on student learning.	
7. Interactions: I ensure individuals show respect for each others’ thinking; I try to be a collaborator, not a blocker; I try to push people to elaborate (e.g. “What makes you say that?”); and I listen to others and show interest in their thinking.	
8. Environment: I ensure my work space conveys positive messages about learning and thinking; I organize my work space to facilitate thoughtful interactions; and I use a variety of ways, including technology, to capture the thinking and decision-making processes of groups.	

III. Introduce One Cultural Force at a Time

In this section, I provide suggestions for introducing the *first* cultural force: **Expectations**. You can then design follow-up workshops for the other seven or have different groups of teachers each take responsibility for presenting one each week. One idea is to suggest they use one of the thinking routines from Ritchhart’s *Making Thinking Visible* to introduce each cultural force.

A. Expectations: Unpack the 5 belief sets that significantly impact teacher actions

As was mentioned previously, research has shown that what teachers do in the classroom is much more the result of *their beliefs* than any set of learned practices. Further, as Stephen Covey states, if we want to change the results, we don’t *start* by changing our behavior, we start by changing our perceptions. This is why teacher expectations for students are so important. Copy the chapter in the book on Expectations or the summary of chapter 2, and have teachers **read it before** coming to this workshop.

In pairs or small groups, have teachers unpack what each belief set would look like in the classroom and then discuss as a large group.

<i>What might opposite sides of each belief set look like in the classroom?</i>	
1. Focusing students on the work:	Focusing students on the learning:
2. Teaching for knowledge:	Teaching for understanding:
3. Encouraging surface learning strategies:	Encouraging deep learning strategies:
4. Promoting student dependence:	Promoting student independence:
5. Developing a fixed mindset:	Developing a growth mindset:

B. Use the **Compass Points** thinking routine to delve further into the 5 belief sets

This is a version of a thinking routine from *Making Thinking Visible*. Use the following four compass points (E, W, N, S) to label the board or 4 large pieces of paper. Rather than cardinal directions, in this routine these letters stand for:

E = Excitements. What excited you about this idea? What’s the upside?

W = Worries. What do you find worrisome about the idea? What’s the downside?

N = Needs. What else do you need to know or find out about this idea?

S = Stance, Steps or Suggestions. What is your current stance about it? What are possible suggestions or next steps?

Start with the first belief set: *Focusing students on the learning vs. the work*. Give everyone sticky notes and time to write their thoughts down, put the sticky notes up on the appropriate compass point, and read the comments of others. Conduct a large group discussion paying attention to commonalities and suggestions for moving forward. Do this again with the other 4 belief sets. It would also help to make the discussion more concrete if teachers shared what they *already do* in the classroom to focus on the learning, teach for understanding, encourage deep learning strategies, promote independence, and develop a growth mindset.