THE 8 CULTURAL FORCES THAT DEFINE OUR CLASSROOMS

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<th>CULTURAL FORCE</th>
<th>DIRECTED TOWARD THINKING BY</th>
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<td>Time</td>
<td>Allocating time for thinking by providing time for exploring topics more in depth as well as time to formulate thoughtful responses.</td>
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<td>Opportunities</td>
<td>Providing purposeful activities that require students to engage in thinking and the development of understanding as part of their ongoing experience of the classroom.</td>
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<td>Routines &amp; Structures</td>
<td>Scaffolding students’ thinking in the moment as well as providing tools and patterns of thinking that can be used independently.</td>
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<tr>
<td>Language</td>
<td>Using a language of thinking that provides students with the vocabulary for describing and reflecting on thinking.</td>
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<td>Modeling</td>
<td>Modeling of who we are as thinkers and learners so that the process of our thinking is discussed, shared, and made visible.</td>
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<tr>
<td>Interactions &amp; Relationships</td>
<td>Showing a respect for and valuing of one another’s contributions of ideas and thinking in a spirit of ongoing collaborative inquiry.</td>
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<tr>
<td>Physical Environment</td>
<td>Making thinking visible by displaying the process of thinking and development of ideas. Arranging the space to facilitate thoughtful interactions.</td>
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<tr>
<td>Expectations</td>
<td>Setting an agenda of understanding and conveying clear expectations. Focusing on the value for thinking and learning as outcomes as opposed to mere completion of “work.”</td>
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Taken from *Intellectual Character: What It Is, Why it Matters, and How to Get It* by Ron Ritchhart (2002), Jossey-Bass Publisher. © Ron Ritchhart, 2002
DEFINING THINKING ROUTINES

• **Tools** used over and over again in the classroom, that support specific thinking moves such as,

  • Making connections
  • Describing what’s there
  • Building explanations
  • Considering different viewpoints and perspectives
  • Capturing the heart and forming conclusions
  • Reasoning with evidence

• **Structures**, through which students collectively as well as individually initiate, explore, discuss, document, and manage their thinking. These structures are:

  • Explicit: They have names to identify them
  • Instrumental: They are goal directed and purposeful
  • A few steps: Easy to learn, and easy to remember
  • Individual as well as group practices
  • Useful across a variety of contexts
  • Help to reveal students’ thinking and make more visible

• **Patterns of behavior** adopted to help one use the mind to form thoughts, reason, or reflect. We see these patterns emerging as the routines:

  • Are used over and over.
  • Become engrained in us both teachers and students.
  • Flexibility emerges.

From Ritchhart et al, 2006
Thinking Routines Matrix
from the upcoming book *Making Thinking Visible* by Ritchhart, Morrison & Church (Spring 2011)

<table>
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<tr>
<th>Routine</th>
<th>Key Thinking Moves</th>
<th>Notes</th>
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<tr>
<td><strong>See-Think-Wonder</strong></td>
<td>Description, Interpretation &amp; Wondering</td>
<td>Good with ambiguous or complex visual stimuli</td>
</tr>
<tr>
<td><strong>Zoom In</strong></td>
<td>Description, Inference, &amp; Interpretation</td>
<td>Variation of STW involving using only portions of an image</td>
</tr>
<tr>
<td><strong>Think-Puzzle-Explore</strong></td>
<td>Activating prior knowledge, wondering, planning</td>
<td>Good at the beginning of a unit to direct personal or group inquiry and uncover current understandings as well as misconceptions</td>
</tr>
<tr>
<td><strong>Chalk Talk</strong></td>
<td>Uncovers prior knowledge and ideas, questioning</td>
<td>Open-ended discussion on paper. Ensures all voices are heard, gives thinking time.</td>
</tr>
<tr>
<td><strong>321 Bridge</strong></td>
<td>Activates prior knowledge, questioning, distilling, &amp; connection making through metaphors</td>
<td>Works well when students have prior knowledge but instruction will move it in a new direction. Can be done over extended time like the course of a unit.</td>
</tr>
<tr>
<td><strong>Compass Points</strong></td>
<td>Decision making and planning, uncovers personal reactions</td>
<td>Solicits the group's ideas and reactions to a proposal, plan or possible decision.</td>
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<tr>
<td><strong>Explanation Game</strong></td>
<td>Observing details and building explanations</td>
<td>Variations of STW that focuses on identifying parts and explaining them in order to build up an understanding of the whole from its parts and their purposes</td>
</tr>
<tr>
<td><strong>Headlines</strong></td>
<td>Summarizing, Capturing the heart</td>
<td>Quick summaries of the big ideas or what stands out</td>
</tr>
<tr>
<td><strong>CSI: Color, Symbol, Image</strong></td>
<td>Capturing the heart through metaphors</td>
<td>Non-verbal routine that forces visual connections</td>
</tr>
<tr>
<td><strong>Generate-Sort-Connect-Elaborate: Concept Maps</strong></td>
<td>Uncovering and organizing prior knowledge to identify connections</td>
<td>Highlights the thinking steps of making an effective concept map that both organizes and reveals one’s thinking</td>
</tr>
<tr>
<td><strong>Connect-Extend-Challenge</strong></td>
<td>Connection making, identify new ideas, raising questions</td>
<td>Key synthesis moves for dealing with new information in whatever form it might be presented: books, lecture, movie, etc.</td>
</tr>
<tr>
<td><strong>The 4 C’s</strong></td>
<td>Connection making, identifying key concept, raising questions, and considering implications</td>
<td>A text-based routine that helps identifies key points of complex text for discussion. Demands a rich text or book.</td>
</tr>
<tr>
<td><strong>Micro Lab</strong></td>
<td>A protocol for focused discussion</td>
<td>Can be combined with other routines and used to prompt reflection and discussion</td>
</tr>
<tr>
<td><strong>I used to think</strong></td>
<td>Reflection and metacognition</td>
<td>Used to help learners reflect on how their thinking has shifted and changed over time.</td>
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<td><strong>What makes you say that?</strong></td>
<td>Reasoning with evidence</td>
<td>A question that teachers can weave into discussion to push students to give evidence for their assertions.</td>
</tr>
<tr>
<td><strong>Circle Viewpoints</strong></td>
<td>Perspective taking</td>
<td>Identification of perspectives around an issue or problem.</td>
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<tr>
<td><strong>Step Inside</strong></td>
<td>Perspective taking</td>
<td>Stepping into a position and talking or writing from that perspective to gain a deeper understanding of it.</td>
</tr>
<tr>
<td><strong>Red Light, Yellow Light</strong></td>
<td>Monitoring, identification of bias, raising questions</td>
<td>Used to identify possible errors in reasoning, over reaching by authors, or areas that need to be questioned.</td>
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<tr>
<td><strong>Claim Support Question</strong></td>
<td>Identifying generalizations and theories, reasoning with evidence, counter arguments</td>
<td>Can be used with text or as a basic structure for mathematical and scientific thinking.</td>
</tr>
<tr>
<td><strong>Tug of War</strong></td>
<td>Perspective taking, reasoning, identifying complexities</td>
<td>Identifying and building both sides of an argument or tension/dilemma</td>
</tr>
<tr>
<td><strong>Word-Phrase-Sentence</strong></td>
<td>Summarizing and distilling</td>
<td>Text-based protocol aimed at eliciting what a reader found important or worthwhile. Used with discussion to look at themes and implications.</td>
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ZOOM IN (Making Thinking Visible)

Look closely at the small bit of image that is revealed.

- What do you see or notice?
- What is your hypothesis or interpretation of what this might be based on what you are seeing?

Reveal more of the image

- What new things do you see?
- How does this change your hypothesis or interpretation? Has the new information answered any of your wonders or changed your previous ideas?
- What new things are you wondering about?

Repeat the Reveal and Questioning until the whole image has been revealed.

- What lingering questions remain to you about this image?

Purpose: This routine asks learners to observe a portion of an image closely and develop a hypothesis. New visual information is presented, and the learner is asked to look again closely and reassess his or her initial interpretation in light of the new information. Because learners must deal with limited information, they know their interpretations must be tentative at best and might change as new information is presented.

Steps:

1. **Set up.** Display a section of the selected image and invite learners to look attentively at it, allowing time for careful observation. May want to begin with observations before moving to invite learners to develop hypothesis or interpretations based on what they have seen. They can do this individually, in small groups, or as a whole class.

2. **Reveal.** Uncover more of the image and ask learners to identify anything new they have seen and consider how this new information affects their previous interpretations and hypotheses. May wish to ask, "What do you think the relationship is between these two people? What feelings are you getting from the words revealed so far? Do you have a prediction of what the next section of data will look like?" Discuss wonderings as well.

3. **Repeat.** Continue the process of revealing and interpreting until the entire image has been revealed and invite learners to state any lingering questions they have. Encourage the learners to discuss the different interpretations and reflect how their thinking has changed with each piece of additional information.

4. **Share the thinking.** Discuss the process with the learners. Ask them to reflect on how their interpretations shifted and changed over time. How did seeing more of the image influence their thinking? What parts were particularly rich in information and had a dramatic effect? Which were more ambiguous? What would the effect have been if the reveals had it happened in a different order?

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)
THINK – PUZZLE – EXPLORE (Making Thinking Visible)

Consider the subject or topic just presented.

- What do you think you know about this topic?
- What questions or puzzles do you have about this topic?
- How might you explore the puzzles we have around this topic?

**Purpose:** This routine is similar to K W L, but is less fact driven and more inquiry and process oriented. It invites students to connect their prior knowledge, to be curious, and to plan for independent and group inquiry. Enables teachers to get a sense of the students current understandings of a topic in thereby influence the shape and structure of subsequent teaching. Since it sets the stage for deeper inquiry it is usually positioned at the beginning of the unit although it is powerful also to use it at the conclusion unit.

**Steps:**

1. **Set up.** Since this routine helps to shape future inquiry and is often used as a reference point at the start of a unit, you'll want to plan some form of documentation. This could be done by students in small groups, or by the teacher on a whiteboard, or through sticky notes to gather and collect students ideas.

2. **Ask, "What do you think you know about...?"** After asking the question, give students time to think and gather the ideas and to draw on past recollections of experiences. They may say or jot down their thoughts and ideas.

3. **Ask, "What questions or puzzles do you have?"** Push the thinking further by inviting the students to wonder more about the topic with additional questions, such as "What would be interesting to investigate and learn more about? What are you wondering about? Are there things about this topic about which you are curious?" Ask the students to articulate, either allowed or on sticky notes, the questions or puzzles they have about the topic.

4. **Ask, "How can we explore these puzzles?"** Ask students to identify a puzzle from the list, or at times you might wish to highlight a couple puzzles for the class, and ask students how the class or individual might explore those puzzles further. "Whom might you ask? Where could you get further information? How would you frame your search keywords? What sources would be worth tapping? What could you do yourself to investigate the puzzle other than lookup the information? How could you find ways to answer your own puzzles?"

5. **Share the thinking.** Often best done as a whole group, if done in small groups then maybe have them report out, perhaps focusing on puzzles.

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)
CHALK TALK (Making Thinking Visible)

Looking at the topical question written on the chart paper:

- What ideas come to mind when you consider this idea, question, or problem?
- What connections can you make to the others’ responses?
- What questions arise as you think about the ideas and consider the responses and comments of others?

Purpose: This routine asks learners to consider ideas, questions, or problems by silently responding in writing both to the prompt and the thoughts of others. This "silent conversation" provides learners with time to follow through thoughts without interruption by choosing when they are ready to consider other points of view and make comments. It highlights the notion of building understanding in a collaborative way through putting forward ideas, questioning one another, and developing the ideas further. Since individuals are asked to sign their comments, there is a degree of an anonymity that will free up some learners to take more risk and offer ideas. This activity can also be used for reflection.

Steps:

1. Set up. Write (above) prompt on a large sheet of chart paper and place on tables around room. Have markers available. Decide if you wish to assign students to groups or allow them to move freely around the room.
2. Present the Chalk Talk prompt. Invite learners to think about their reactions to the prompt and record the ideas and questions. Encourage learners to read and to add to each other's responses with additional comments and questions.
3. Circulate. Provide time for learners to circulate around the Chalk Talk paper, reading and adding to the prompts and responses as they build. If working in groups you may want them to stay with one recording sheet for 5 min. to allow conversation to develop. Groups can then rotate en masse to another group's paper, silently reading what is written there, and adding their reactions and questions to the paper.
4. Facilitate. May need to prompt the group about the types of responses they can make as they read: connecting ideas, elaborating on others' ideas, commenting on what others have written, asking others to respond with more detail, and so on.
5. Share the thinking. If people have rotated as a group, allow them to return to their original starting places to read what others have written on "their" Chalk Talk paper. Ask the group what themes they noticed emerging. What did they see as common issues and reactions? What questions surprise them? Debrief the process itself, asking the group how their thinking developed during the Chalk Talk process.

Important to monitor the time and keep group appraised of the time.
3-2-1 BRIDGE (Making Thinking Visible)

**INITIAL RESPONSE**
- 3 Words
- 2 Questions
- 1 Metaphor/Simile

**NEW RESPONSE**
- 3 Words
- 2 Questions
- 1 Metaphor/Simile

Identify how your new responses connected to or shifted from your initial response

**Purpose:** The first part of the 3-2-1 Bridge routine is all about activating prior knowledge before a learning experience begins. By starting with three words, the routine is very accessible and activating some basic ideas. The two questions push a bit further. Finally, the one metaphor or simile is a test of how one is understanding and framing a topic or issue.

After students' initial thoughts are generated, these ideas are set aside and not discussed. Instead, the teacher begins the learning of the unit. After an initial period of learning, students return and produce a second 3-2-1. At this stage, the key thinking done by learners is to distilling their new ideas while assessing their current thoughts and understandings about the topic. The final part helps learners recognize and name their own learning and development.

**Steps:**

1. **Set up.** Decide how students will record the response. Since it may be a while before they return, ensure they don't lose their responses.
2. **Ask for three words.** Ask students to generate three words that quickly come to mind when I think of this topic. Encourage them not to overthink. You are interested in some quick associations they are making to the topic.
3. **Ask for two questions.** Ask students to generate two questions that quickly come to mind regarding the topic, again, no need for a lot of deep thought.
4. **Ask for one metaphor or simile.** May need to explain what a simile or metaphor is. For example, "Planets are..." Or "Planets are like..."
5. **Provide an instructional period.** This may be a video, text, image, story, or experiment that conveys new information. There is no time limit, however it needs to be of sufficient substance to move the students' thinking beyond their initial understandings.
6. **Perform the second 3-2-1.** Repeat steps 2-4 above. This time our students to select words, questions, and metaphor that was prompted or encouraged by the instruction.
7. **Share the thinking: Bridging.** Invite learners to share with partners both their initial and new responses to the 3-2-1. They should discuss what they are noticing about how their thinking on the topic shifted from the initial responses. Reiterate that their initial thinking is neither right nor wrong; it is simply a starting point. Try to record major shifts or changes.
COMPASS POINTS (Making Thinking Visible)

Considering the idea, question, or proposition before you:

E = Excitements. What excites you about this idea or proposition? What's the upside?
W= Worries. What do you find worrisome about this idea or proposition? What's the downside?
N= Needs. What else do you need to know or find out about this idea or proposition?
S= Stance, Steps, or Suggestions. What is your current stance or opinion on the idea or proposition? What should your next step be in your evaluation of this idea or proposition? What suggestions do you have at this point?

Purpose: This routine enables groups of learners to consider an idea, or proposition from different angles. It encourages them not to rush into making judgments. Working out "what you need to know" tends to be the most complex step of this routine; it requires reflective thinking to consider what is already known, analyze this, determine where the gaps are, and then develop questions whose answers will help fill the gaps. It works well when the topic, idea, or proposition is one for which there are dilemmas or dissenting points of view or when some people are so attached to their perspectives it's difficult for them to consider the idea more broadly. Since Compass Points looks at a proposition, rather than debating an issue, the position to be considered needs to beforehand, so that the issue in question or the event to be explored is clear.

Steps:

1. **Set up.** Frame the issue, event, or proposition and present it to the learners. If the proposition is new, allow questions of clarification to ensure the learners have some sense of the topic. To document, place four large sheets of paper one for each compass point, on the walls and label appropriately. Could be done using sticky notes and compass on board.

2. **Identify excitements.** Ask, "What excites you about this idea or proposition? What is the upside?" Allow time to think and write and post ideas on chart.

3. **Identify worries.** Ask, "What worries would you have about this? What are your concerns? What's the downside?"

4. **Identifying needs.** Ask, "What do you need to know and gather more information about to help you better understand this issue will prepare for this event?"

5. **Ask for stances, steps, or suggestions.** Depending on the issue, events determine if more appropriate to our students to take a stance, etc.

6. **Share the thinking.** Invite comments on the themes that emerge in each category; were there commonalities in the responses? Spend some time on the "suggestions for moving forward" responses and develop a plan for putting into action some of the suggestions.
HEADLINES (Making Thinking Visible)

Think of the big ideas and important themes in what you have been learning.

- Write a headline for this topic or issue that summarizes and captures a key aspect that you feel is significant and important.

**Purpose:** The Headlines routine asks students to reflect and synthesize as they identify the essence or core of the situation or learning experience. By asking students to sum up their current notions of a lesson or concept using a headline, teachers send the message that taking notice of big ideas is critical to understanding.

**Steps:**

1. **Set up.** After students have had some learning experiences, ask them to consider what they think some of the core ideas in what they're been learning seem to be.
2. **Write a headline.** Ask the students to "Write a headline for this topic or issue that captures an important aspect or core idea that we would want to remember." Can do it individually or with partners.
3. **Share the thinking.** Draft a headline and then share it with students around the room. It is important not only to share the headline but also the story and reasoning behind their choice, unpacking the headline for others. This is not a competition but a forum in which different perspectives and nuances are surfaced.
4. **Invite further sharing.** Create a class collection of the headlines to document the groups' thinking. Search for common themes or elements among the headlines.

*Note that this routine is not about students coming up with the superficial or catchy phrase. It's about inviting learners individually and as a group together thinking towards core, central ideas and elements that are at the heart of the topic being studied.*

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)
CSI: COLOR, SYMBOL, IMAGE (Making Thinking Visible)

Think of the big ideas and important themes in what you have just read, seen, or heard.

- Choose a color that you think best represents the essence of that idea.
- Create a symbol that you think best represents the essence of that idea.
- Sketch an image that you think best captures the essence of that idea.

**Purpose:** This routine asks our students to identify and distill the essence of ideas in nonverbal ways using a color, symbol, and image to represent the big ideas they have identified. In making the selections, students are pushed to think metaphorically. Metaphors are a major vehicle for developing an understanding of ideas as they connect something new to something we already know by identifying similarities in making comparisons.

**Steps:**

1. **Set up.** After students have read from a book, listened to a speaker, or reviewed the video, have them think about the core ideas and make note of things they found interesting, important, or insightful. They do it individually or in groups.
2. **Choose a color.** Each student selects a color that he or she feels represents the core ideas he or she has identified in the piece of content being explored.
3. **Create a symbol.** Each student selects a symbol that he or she feels represents the core ideas they have identified.
4. **Sketch an image.** Each student selects an image that he or she feels represents core ideas he or she is identified.
5. **Sketch the thinking.** Working with a partner in a group, each student shares his or her color and tells why he or she made that choice. How do they connect to the passage of content the class is trying to understand? How does the color connect to the big ideas just read, heard, or seen? Repeat until everyone has shared.

*Although the routine specifies color, symbol, and then image, it is not necessary to do them in that order.*

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)
CONNECT-EXTEND CHALLENGE (Making Thinking Visible)

Consider what you have just read, seen, or heard, then ask yourself:

- How are the ideas and information presented connected to what you already knew?
- What new ideas did you get that extended or broadened your thinking in new directions?
- What challenges or puzzles have come up in your mind from the ideas and information presented?

Purpose: This routine is one that helps students fasten ideas together and raise awareness of puzzles worth further attention. The use of this routine offers structure and space in which new thinking around the topic, as inspired by new learning experiences, can be made visible. Here students connect new ideas they come across to those they already hold or reflect upon how the thinking has been extended as a result of what they have just read, seen, or heard. The routine also asks our students to articulate challenges and puzzles they believe to be particularly important to the efforts to explore an issue or concept.

Steps:

1. **Set up.** Before students begin listening to a story, reading a passage, viewing a video, and so forth, invite them to be mindful of how this new learning experience connects to what they already know.
2. **Connect.** After the activity, have students take note of how what they've just experienced connects with ideas they've already explored or thought about. Ask, "How do the ideas and information you've just heard connect to ideas you already thought about or knew?"
3. **Extend.** Prompt students to identify how the ideas have broadened, deepened, or extended in some way as a result of the new learning experience. Ask, "How has your thinking been extended in some way, taking it in new or further or deeper directions?"
4. **Challenge.** Our students to consider ideas that seem significantly challenging in the topic. "What challenges or puzzles have come up in your mind about this topic now that you've been presented with these new ideas and information?"
5. **Share the thinking.** After sharing thinking, display on chart paper.
THE 4C’S (Making Thinking Visible)

After reading a text:

- **Connections**: What connections do you draw between the text and your own life or your other learning?
- **Challenge**: What ideas, positions, or assumptions do you want to challenge or argue with in the text?
- **Concepts**: What key concepts or ideas do you think are important and worth holding onto from the text?
- **Changes**: What changes in attitudes, thinking, or action or suggested by the text, either for you or others?

**Purpose**: This routine provides learners with a structure for a text-based discussion built around making connections, asking questions, identifying key ideas, and considering application. It encourages the reading and the revisiting of text in a focused, purposeful way that enables readers to delve beneath the surface and go beyond the first impressions. Although originally designed for use with nonfiction text, it can be applied to fiction as well with only minor changes.

**Steps:**

1. **Set up**. Invite learners to read the selected text either before the session or provide time within the session. After the routine has been learned, is often useful for the learners to know that the 4C’s will be the framework for discussing the text. Have the process clearly visible.

2. **Making connections**. After reading the text, invite learners to find passages from the text that they can identify with, either from something that has happened to them or is somehow connected to other learning experiences. Begin group discussions by asking learners to read the passages from the text to which they are connecting. Ask them to explain the connection.

3. **Raise challenges**. Ask learners to find ideas oppositions in the text that, as they read them, raise the red flag for one reason or another. Have them explain what questions came into their minds as they read those ideas.

4. **Note concepts**. Briefly review the text and note key concepts, themes, or ideas. It is appropriate to say "What makes you say that?" To elicit foundation for their ideas.

5. **Identify changes**. Reflect on overall text and think about its implications. What does it suggest or encourage his actions or positions? Identify the changes of thinking that may have occurred as a result of reading.

6. **Share the thinking**.

Although steps are presented in order, it is acceptable to vary them as students become more experienced.

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)
THE MICRO LAB PROTOCOL (Making Thinking Visible)

Reflect individually on the issue or topic being examined, then working in triads:

- **Share**: The first person in the group shares for a set time (usually 1 – 2 min.). The other members listen attentively without comment or interruption.
- **Pause for 20 - 30 seconds of silence to take in what was said.**
- **Repeat for persons two and three, pausing for a moment of silence after each round.**
- **Discuss as a group (5 – 10 min.), referencing the comments that have been made and making connections between the responses of the group.**

**Purpose:** This routine helps keep groups on track and prevents a single person from dominating the discussion. Regular use will help students become better listeners and they learn how to build on and connect to others’ ideas. It is important that students bring something to the table, if they don’t bring something to the table, the banquet of discussion will be lacking.

**Steps:**

1. **Set up.** Inform learners of both what you want them to discuss and what you are hoping they get out of these discussions. Decide how long you will give them to reflect (usually in writing. Usually five – 10 min. is sufficient.) Explain the protocol, its purpose, guidelines, and how much time will be given for each round of sharing and silence. Form groups of three and have groups number off so they will know who goes in which order. Inform groups you will act as timekeeper.
2. **Share.** Number one begins for assigned time. No one speaks except speaker. Other group members listen attentively and may take notes if they wish. Announce time, all groups are silent.
3. **Call for silence.** Allow 20 – 30 seconds of silence for everyone to take in what was heard.
4. **Two rounds 2 and 3.** Repeat steps 2 and 3 above until each member has shared his or her thinking. If group finishes before time, spend time reflecting in silence.
5. **Commence discussion.** Have an open discussion for predetermined time (usually 5 – 10 min.). Encourage groups to begin by making connections between what others have said or asking questions of clarification.
6. **Share the thinking.** As a whole group, our students reflect on the protocol itself and how they felt it facilitated their thinking about the issue or topic. Be sure to debrief about how the silent periods worked for them.

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)
WHAT MAKES YOU SAY THAT? (Making Thinking Visible)

In follow-up to a statement, assertion, or opinion expressed by someone, ask:

- What makes you say that?

**Purpose:** This routine (WMYST?) is based on Visual Thinking Strategies (VTS) and is as much a discourse routine as it is a thinking routine. It helps students identify the basis for their thinking by asking them to elaborate on the thinking that lies behind the responses. Seemingly simple, when used regularly, it goes a long way to fostering a disposition toward evidential reasoning.

**Steps:**

1. **Set up.** Unlike other routines, WMYST? Doesn’t need to be set up, as much as placed at the appropriate time. Look for moments when students make assertions, give explanations, provide interpretations, all offer opinions.

2. **Push for elaboration with evidence.** As students share their ideas and explanations, it is important to follow-up by asking the key question of this routine: "what makes you say that?" The goal here is to both elicit and support students attempted justification; therefore, may be necessary to ask, "So what do you see that makes you say that?" Or "So what do you know that makes you say that?"

3. **Share the thinking.** WMYST? Exists mainly in the interchanges that teachers have with their students, so while documentation of students' thinking is an option, simply creating an opportunity for more learners to share what they're thinking is when prompted by WMYST? is often enough to enrich the conversation.
CIRCLE OF VIEWPOINTS (Making Thinking Visible)

Identify the different perspectives that could be present or affected by what you have just read, seen, or heard. Record these in a circle with the issue or event at the center. Choose one of these perspectives to explore further, using the following prompts as a starting place:

1. I am thinking of (name the issue/event) from the point of view of...
2. I think... (Describe the topic from your viewpoint. Be an actor – take on the character of your viewpoint). Because... (Explain your reasoning)
3. A question/concern I have from this viewpoint is...

Purpose: This routine focuses on perspective taking. Before one can develop skills of perspective taking, one must be able identify the different perspectives present. The ultimate goal of this process is to gain a broader and more complete understanding of the topic, event, or issue through this process. It is important to have rich source material to support this routine. It can be introduced through a series of photos, still life or series of YouTube videos.

Steps:

- **Set up.** Introducing the source material, be sure and provide plenty of time for us examination.
- **Identify viewpoints.** Generate a list of viewpoints. They don't need to be only people, although this is an obvious place to start, they can be inanimate objects: parts of the setting, the tree at the side of the scene, the bird overhead, etc. Students can identify actors in groups not immediately present in the story or image but affected by it. This can involve thinking forward to the future as well as in the present. Record these in a circle around the listed topic or issue.
- **Select a viewpoint to explore.** Our students are selected viewpoint that they want to explore.
- **Respond to the "I think..." Prompt.** Our students to take on the character of their viewpoint and describe the topic from this new perspective. What does his personal character think about the event or situation? What is their take? What do they think of this? Give students time to think about and imagine what this personal thing could be considering.
- **Respond to the "a question I have from this viewpoint..." prompt.** Our students to imagine what this personal thing might be puzzled or curious about and create a question from this viewpoint.
- **Share the thinking.** Decide whether sharing will happen in a small group or whole class. Document the main threads that permeate the discussion, particularly noting the differences in viewpoints.

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)
STEP INSIDE (Making Thinking Visible)

Think about a person or an object that is part of or connected to the event or situation you are examining. Place yourself within the event or situation to see things from this point of view. Some questions to consider:

- What can this person or thing see, observe, or notice?
- What might the person or thing know, understand, hold true, or believe?
- What might the person or thing care deeply about?
- What might the person or thing wonder about or question?

**Purpose:** This routine focuses on perspective taking. Seeks to provide a structure to take this thinking to another level and develop an even greater emphatic response than Circle of Viewpoints. As such, this routine can be an effective way for students to push their thinking further than they might do in the Circle of Viewpoints. The idea is for students not to be fanciful when stepping inside, but to try and see things from a different perspective based on evidence. It begins by noticing/observing from the personal objects’ perspective. These observations become the basis for stances, opinions, and ideas to follow. The Circle of Viewpoints is often linked to Step Inside.

**Steps:**

1. **Set up.** Introduce material and have students think about the players and observers (both animate and inanimate) in this scenario and ask them to select a personal thing or thing to Step Inside. (May want to use Circle of Viewpoints as part of the setup)
2. **Ask, “What can this person or thing see, observe, or notice?”** Students imagine themselves as the personal thing they selected and what they could now see, observe, or notice.
3. **Ask, “What might the personal thing know about, understand, or believe?”** This kind of thinking may be a bit of a stretch initially. May follow-up student responses with "What makes you say that?" to focus on evidentiary basis for the statements.
4. **Ask, “What might the personal thing care about?”** Record these ideas.
5. **Ask, “What might this personal thing wonder about or question?”** Again, make a list.
6. **Share the thinking.** During this time ask the class to articulate what image of the character is emerging.

The terminology is worth thinking about when introducing this routine. Words like might – “What might the person or object wonder?” Rather than “What does the person or object wonder?” implies that the idea is not to find a single definitive answer, but to generate reasonable possibilities and alternatives. It is important to think about what you will hope to have students learn through this process, making it more than just a fun activity.

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)
SENTENCE-PHRASE-WORD (Making Thinking Visible)

Good discussion group tool to review text and then select:

- **Sentence** that was meaningful to you, that you felt captures the core idea of the text.
- **Phrase** that moved, engaged, or provoked you.
- **Word** that captured your attention or struck you as powerful.

As a group, discuss and record your choices. Begin by sharing your words, then phrases, then sentences. Explain why you made the selections you did. Looking at your group’s collective choices of words, phrases, and sentences, reflect on the conversation by identifying:

- What themes emerge?
- What implications or predictions can be drawn?
- Were there aspects of the text not captured in your choices?

**Purpose:** This structure for a conversation can be used as both a discourse and thinking routine. It helps learners engage with and make meaning from text with a particular focus on capturing the essence of the text or "what speaks to you." However, the power and promise of this routine lies in the discussion of why a particular word, a single phrase, and a sentence stood out for each individual in the group as a catalyst for discussions.

**Steps:**

1. **Set up.** Give time to read selected texts in advance unless text is short and can be read on spot. Encourage active reading and highlighting. Not necessary to read with Sentence-Phrase-Word protocol in mind.
2. **Select a sentence-phrase-word.** Ensure what is selected is meaningful to the reader.
3. **Share selections.** In groups of 4 to 6 people, ask learners to share and record their choices, explaining why they selected them. Sharing and discussion should occur in rounds, so the discussion is facilitated. First participant shares a sentence and explains why she chose it, inviting others to comment and discuss. The sentences recorded and then the next person shares, records, and discusses until everyone has their turn. The group then moves to phrases and finally to words.
4. **Invite reflection on the conversation.** Each group looks at its documented responses. They identify common themes that emerge from these responses and then the implications and/or predictions they suggested. Finally the group identifies any aspects of the text that were not represented in their choice of sentences, phrases, and words.
5. **Share the thinking.** Post documentation from all the groups. Allow time to look at the sentences, phrases, and words chosen and the themes and implications drawn. Invite each group member to reflect briefly on his or her current understanding of the text and how using the routine contributed to his or her understand understanding of it.

*It is not essential to complete all three steps to achieve the purpose, sentence and word okay.*

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)
I USED TO THINK..., NOW I THINK... (Making Thinking Visible)

Reflect on your current understanding of this topic, and respond to each of the sentence stands:

- I used to think...
- Now I think...

Purpose: This routine helps students reflect on their thinking about a topic or issue and explore how and why that thinking is changed. By examining and explaining how and why their thinking has changed, students develop their reasoning abilities and recognize cause – and – effect relationships. This routine also develops students' metacognitive skills, the ability to identify and talk about one's thinking itself.

Steps:

1. Set up. Explain to students the purpose of this routine is to help them reflect on their thinking about a topic and to identify how the ideas have developed over time. Journals may be beneficial.
2. Encourage individual reflection. Say to the students, “When we began this study, you all had some initial ideas about it and what it was about. Take a minute to think back to when we started and remember what kinds of ideas you once held. Write what it is that you used to think about your topic, starting off with the words, ‘I used to think...’” Then say, “Now, I want you to think about how your ideas about our topic have changed as a result of what we've been studying, doing, and discussing in class. Write a few lines to capture where you are now in your thinking, starting with the phrase, ‘Now, I think...’”
3. Share the thinking. Have students share and explain their shifts in thinking. Initially, do as whole group to push thinking. Later on can be small groups or pairs before soliciting whole – group response.

It is important this routine carries the message that the teacher is genuinely curious about how his or her students’ thinking is growing. Watch out for "teacher – pleasing" and having the "right" or "wrong" answer.

This is not an activity to be done before instruction since you cannot identify misconceptions and ingrained assumptions until they have been confronted.
SEE – THINK – WONDER (Making Thinking Visible)

A looking at an image or object:

- What do you see?
- What do you think is going on?
- What does it make you wonder?

Purpose: This routine emphasizes the importance of observation as a basis for the thinking and interpretation step that follows close looking. At the beginning of this routine, students spend a few minutes silently looking at a work of art, image, or some kind of artifact. This "Seeing" provides the opportunity to look carefully, to more fully observe, and to notice before interpreting. The placement of "Wonder" as a final step of the routine ensures that learners have had time to take in new information through careful observation, think about and synthesizes information, and then identify additional wonderings. This routine is often used at the start of the unit of study as it allows questions to be raised that might guide future inquiry.

Steps:

1. Set up. Present the chosen image in a way that allows the students to see the image/object in as much detail as possible. Allow sufficient silent time for close observation (1 or 2 mins.), before any talk or discussion.
2. See. Ask learners to state what they noticed. Emphasize you're not looking for interpretations at this stage, only what they observe. One method of debriefing the "I see's" is to have students do a Think – Pair – Share.
3. Think. Ask learners what they think is going on in the image/object. This general interpretive question may be modified to suit the image/object. Is often effective to respond to students' responses with "What do you see that makes you say that?" This encourages learners to provide supporting evidence.
4. Wonder. Ask learners what they are now wondering about based on what they have seen and have been thinking. Initially, students may find it hard to separate "thinking" from "wondering." It may be helpful to suggest that wondering is about asking broader questions that push us beyond our interpretation to look at issues and ideas raised by the image/object.
5. Share the thinking. Though not necessary, it is sometimes helpful to document the thinking of each stage.

Make sure you give enough time to looking closely and noticing details. You may be tempted to move on to the interpretive "Think" stage, but the "See" stage not only has the advantage of making everyone more aware of what is in the image, it provides the foundation students will draw on in making their interpretations.

Making Thinking Visible (2011). Ron Ritchhart, Mark Church, Karin Morrison. (Jossey Bass)