

On-the-Spot TPTs

You can have the best lesson and read the most intriguing stories, but if you've lost your students, your wonderful lesson wasn't as wonderful as you had hoped. For me that was a huge wake-up call, that one math lesson where I looked up from the overhead and realized no one was with me. See, in my head, it was going great! But it was going great for me, not for them!

—Courtney Cislo, 5th grade teacher

How many times have you looked up during your teaching only to wonder whether or not your students still had a pulse? Although that may be a bit of an exaggeration, have you ever stopped to wonder if your students were still with you, and whether or not they were processing or even comprehending what you were presenting? Rather than forge ahead with your presentation, we recommend that you stop and take the pulse of the class as a whole. On-the-spot TPTs allow teachers to quickly gauge the depth of student understanding of concepts being taught. They are activities that require little or no advance preparation. You can insert several in a lesson the minute you notice cognitive disengagement or disconnect. Or you can plan to include them strategically in select spots within your lessons.

As noted in the Introduction, we present each TPT activity in four sections. The first is a general overview of the activity, the second is the steps for "How It Works," the third is about "How to Ensure Higher-Order Thinking," and the fourth is titled "Pause to Apply," with reflective questions aimed at helping you to think through how each technique can be applied to your personal classroom situation and your curricular aims.



Think-Pair-Share

Think-Pair-Shares (Lyman, 1981) are an easy Total Participation Technique that you can start implementing tomorrow. For example, 5th grade teacher Mike Pyle uses Think-Pair-Shares several times daily in his classroom. During an observed lesson, he asked students to predict what the

Source: From *Total Participation Techniques* (pp. 31–48), by P. Himmele and W. Himmele, 2011, Alexandria, VA: ASCD. Copyright 2011 by ASCD.

main character would do next and be able to explain why. He allowed a good pause, even though hands were going up, and then asked students to share their response with their neighbor.

According to 6th grader Abby, "I feel very good inside because when someone else hears my thoughts and understands them, then they tell me what was good about what I said." The Think-Pair-Share is a simple but powerful tool that should be used repeatedly and consistently throughout the day.

How It Works

1. Ask students to reflect on a question or prompt. Give them a brief amount of time (perhaps 30 seconds) to formulate a response.
2. Ask students to pair up or to turn to their assigned partner.
3. Ask them to discuss their responses.

Note: To avoid repeating directions, you can use Pair-Shares as a simple review of procedural directions you have just explained to students. A simple direction such as "Turn to your partner and explain what you have been asked to do first, second, and third" can ensure that all students understand their roles.

How to Ensure Higher-Order Thinking

As powerful a tool as the Think-Pair-Share can be, it is only as powerful as the prompt on which students are asked to reflect. Use prompts that require students to analyze the various points of view or the components that are inherent in your target standard. Ask questions that require students to explain how these components fit together or affect one another. For example, a teacher might ask, "How might the concept of an electoral college be considered undemocratic?" In responding, students must understand the intricacies of the electoral college and then contrast these with the various attributes of a democracy.

Ask students to evaluate something by defending it based on concepts learned. For example, a teacher might ask, "Up until now, multiplying numbers has always resulted in a larger number. Using words and pictures, explain why multiplying by a fraction will always result in a smaller number." At times you may decide that after pair-sharing you would like students to join their pairs with other pairs, so that each student gets to hear and share with several peers rather than just one.

Pause to Apply

What are you teaching tomorrow? Start planning for inserting Think-Pair-Shares throughout your presentations. When might be a good time to try this simple but underused activity? Keep in mind that English language learners and students with certain special needs will benefit from bulleting or quick-writing their thoughts before the Pair-Share. In fact, we find that most of the time a Quick-Write will only enhance the Pair-Share, because students were given enough time to process their thinking.

Quick-Writes

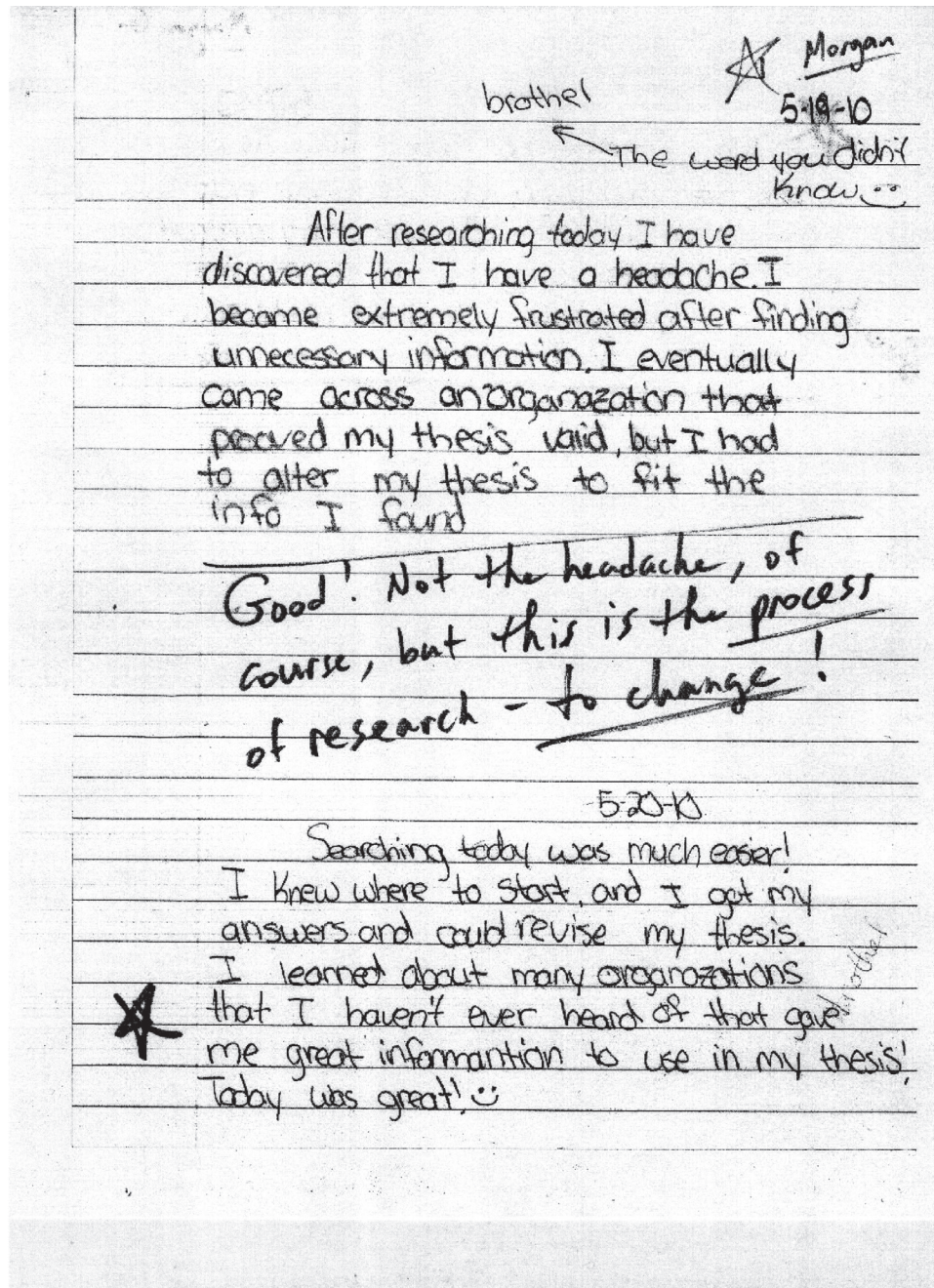
A Quick-Write is a brief activity that can be inserted at almost any point within a lesson or planned ahead using prepared prompts. It does not have to take long—just enough time for students to stop and reflect in writing on what they are learning (three minutes is usually sufficient). A teacher might say something like this: “For the next three minutes, jot down your reflections on how the Earth’s shifting plates may have directly affected the landscape of where you live.” Quick-Writes can also make use of word banks to ensure that students address important concepts learned. For example, teachers can identify a handful of words that they would like students to use within their Quick-Writes.

Quick-Writes can also be used as a way for students to analyze their own metacognitive thinking processes. Before dismissing his class, 8th grade English teacher Matt Baker asked his students to reflect on the process of conducting their research projects. Figure 4.1 is an example of Morgan’s reflection on her own attempts at writing a thesis statement. This process of journaling provided valuable information for Baker as he conducted this quick progress-check on his students and responded to each student’s status as a researcher.

How It Works

1. Select a prompt that you would like students to address.
2. Give students a specified amount of time to collect their thoughts and jot down a response (approximately three to five minutes).

Figure 4.1
Morgan's Quick-Write



3. Follow this up with a Pair-Share, a Networking Session (see Chapter 6), a Chalkboard Splash (presented later in this chapter), or another Total Participation Technique.

How to Ensure Higher-Order Thinking

Go beyond asking students to explain the meaning of a concept. Instead, ask students to make connections between the concepts and their effect on the world around them. Use wide-open questions. For example, get used to using questions that begin with phrases like “In what ways . . .” and “How might things be different if . . .” Provide opportunities for students to understand the broader implications of what they are learning. Simple questions like “Why is this important?” and “How does it relate to our lives?” might help students stop and reflect on the deeper connections and purposes for what they are learning. Allow students opportunities to interact and listen to their peers as they share their Quick-Writes in small groups.

Pause to Apply

What are you teaching this week? What prompts can you interject throughout your teaching to ensure that students are understanding and making connections between what is being learned? Use a word bank to ensure that target vocabulary or concepts are embedded within the Quick-Write. We encourage you to make the Quick-Write a staple in your teaching. You will notice that many of the ideas presented in this book first rely on students having had an opportunity to process their thinking, preferably through a Quick-Write.

Quick-Draws

Quick-Draws (Himmele & Himmele, 2009) are opportunities for students to demonstrate their understanding of an abstract term or concept by representing it in a drawing. This TPT can be used with almost any age group, from young children through adults. Quick-Draws can be used in any content area, not only for vocabulary concepts like *renewable resource*, but also for abstract concepts like *sustainability*. We even use Quick-Draws in our university classes to ensure that students are able to understand and deeply analyze concepts. We are always amazed at the depth

and the variety of images that students create as a result of having to analyze and represent abstract concepts in a drawing.

How It Works

1. Select a “big idea” or major concept within your lesson.
2. Ask students to reflect on the meaning of the concept and create a visual image that represents that concept (allow approximately three to five minutes).
3. Have students share and explain their image with a partner, in a small group, or in a Chalkboard Splash (described next).

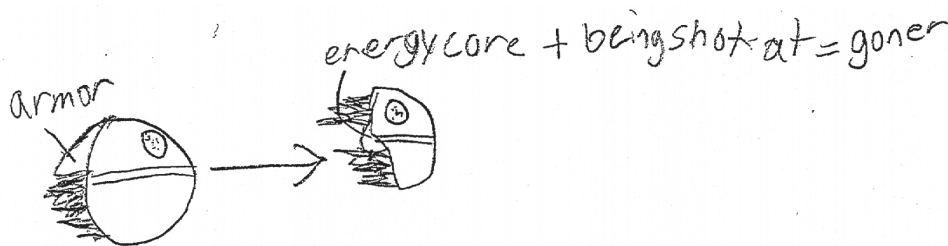
How to Ensure Higher-Order Thinking

The thinking processes that occur when you ask students to demonstrate an abstract concept in the form of a drawing lend themselves to the analysis of the different components that make up the meaning of the concept, as well as to the synthesis of these components into a visual representation. After students create their drawings, give them an opportunity to share and explain the reasons they chose their particular visual to represent the concept.

Figure 4.2 is Bram’s Quick-Draw depiction of the term *vulnerability*, a major theme from Meghan Babcock and Keely Potter’s unit on symbolism. In Bram’s analysis, he explained that “the Death Star [in *Star Wars*] without the armor is vulnerable. But with the armor, it is not vulnerable.” According to 6th grader Hannah, “What helped me out the most was the drawing and writing time [Quick-Draws with accompanying analyses] because it really made me think about the situation.”

Figure 4.2

Bram’s Quick-Draw of Vulnerability



Pause to Apply

If you're thinking that the Quick-Draw would not fit practically within the standards that you are teaching, stop to reflect on the specific topics you will be teaching this week. What big ideas and concepts do you hope that students will walk away with? How would you draw these? We think that most teachers would be surprised with how practical this activity is, even with concepts that don't seem to be easily captured in a drawing. Within the next week, when might you insert a Quick-Draw, where students can pause to synthesize their deeper understandings in the form of a visual representation?

Chalkboard Splash

"What have you noticed about yourself as a reader because of this unit?"

"What do you think the main character will wish for? What makes you think that?"

"What is the most important thing that you learned about today's topic?"

"Which of these forms of pest management do you think is the best? Why?"

These are all questions that you could ask students to consider in a Pair-Share or a Quick-Write, but if you want the entire class to see the collective responses of their peers, then the best way to ask these questions may be in the form of a Chalkboard Splash. In a Chalkboard Splash (which can also be a Whiteboard Splash or a Chart-Paper Splash), all the students record their responses (or copy their Quick-Writes or Quick-Draws) onto random or assigned spots on the room's chalkboards or whiteboards, or on pieces of chart paper. After recording their responses, students are asked to analyze peer responses for three things: similarities, differences, and surprises. If you don't have multiple chalkboards or whiteboards, or if you want to hold on to the comments for later reference, use several pieces of butcher paper or chart paper instead of the chalkboards or whiteboards.

For 5th grade student-teacher Heather Berrier, a Chalkboard Splash was a way to wrap up her lesson on Paul Revere's historic engraving of the Boston Massacre. After analyzing the event from two different points of view, students were asked to select a spot on the whiteboards and sum up their viewpoint with a Quick-Draw of their own engraving. Before students took their seats, they walked around to look at the various drawings representing their classmates' different points

of view. In the classroom of 5th grade teacher Mike Pyle, the whiteboards were labeled with the names of five different characters from a historical novel being read in class. After students analyzed character traits in small groups, they were asked to write these under the whiteboards that were designated for each character. Similarities and differences were discussed as students explained their reasoning for choosing specific character traits. Chalkboard Splashes provide a quick way to debrief student responses, Quick-Draws, or brief Quick-Writes.

We absolutely love Chalkboard Splashes and use them repeatedly at the university level. They give a community-of-learners feel to whatever we teach as students find themselves genuinely interested in what their peers wrote. They are perfect for times when you want to get a feel for how every student in the class would respond to a question.

How It Works

1. Create a sentence starter, prompt, or question for which you would like all students to see all of their peers' responses (these can also be used with brief Quick-Writes and Quick-Draws).
2. As students generate responses, ask them to copy their responses onto random or designated places on the chalkboards, whiteboards, or chart papers.
3. Debrief by asking students to walk around, analyze, and jot down similarities, differences, and surprises, perhaps using a form such as that shown in Figure 4.3.
4. Ask students to get into small groups and share what they noticed in terms of similarities, differences, and surprises, before asking for volunteers to share.

Figure 4.3

Chalkboard Splash Debriefing Form

Similarities	Differences	Surprises

How to Ensure Higher-Order Thinking

Chalkboard Splashes are great for addressing the big picture and the relevance factor with whatever topic you are teaching. For example, you may want to periodically use Chalkboard Splashes to address the following prompt: “So what? Why is this important?” For example, what is the purpose for learning about Paul Revere’s historic engraving? For Heather Berrier, it was to help students understand that Revere’s was one of many views that was represented at the time and that has affected how we view history today. Guide students to analyze their peers’ entries. What were the similarities, differences, and surprises? What new questions emerge from the similarities, differences, and surprises?

Pause to Apply

This activity works really well when Quick-Writes and responses to prompts are kept brief. In fact, we will often create a sentence starter and ask the students to complete the sentence in the form of a Chalkboard Splash. For example, after introducing a specific teaching technique in our university classroom, we asked students to reflect on the effect that this technique would have had on their own learning in the mathematics classroom during their K–12 experience. Our sentence starter was simply “In my own experience, the use of this technique would have” Students completed the statement by personalizing it. What sentence starters could you use in the form of a Chalkboard Splash that will help students personalize or see the relevance in what you are teaching this week?



Thumbs-Up When Ready and Processing Cards

Allowing students to take even a brief time to process their reflections to a prompt is critical if you want to get quality responses—especially if you have students with certain special needs or English language learners in your class. Here are two ways to read each individual’s progress as the students process their reflections. Both techniques also serve as great unspoken reminders to students that they should all be in the process of reflecting on the prompt.

How It Works: Thumbs-Up When Ready

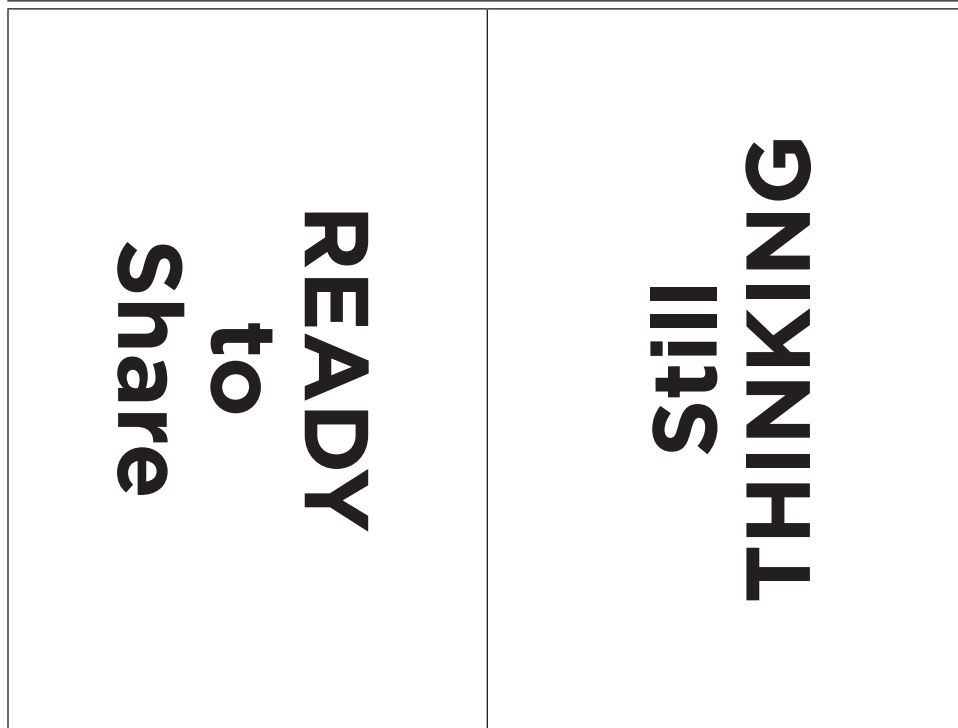
1. Ask students to reflect on your prompt.
2. Explain that when they have a thought, or are finished, they should put their thumb up as an indication that they are ready to move on.
3. Add a Pair-Share to allow time for students to share what they know.

How It Works: Processing Cards

1. Give students Processing Cards (see Figure 4.4). Processing Cards are index cards, laminated cards, or printed papers folded into “tents” that on one side say “Still Thinking” with a yellow highlight or a picture of a yellow circle or square, and on the other side say “Ready to Share” with a light-green highlight or a picture of a green circle or square.
2. Ask students to place the card on the edge of their desk, with the side that says “Still Thinking” facing up or out.
3. As soon as students have completed their task, they should flip the card over so that the side that says “Ready to Share” is facing out or up.
4. Decide on an in-between activity that gives students who finish early an opportunity to apply or extend their learning.

Figure 4.4

Processing Card



How to Ensure Higher-Order Thinking

Your prompt or task will determine whether or not this activity requires lower-order or higher-order thinking skills. Ask students to justify their responses and to give the basis for their justification. For example, are they justifying responses based on personal experiences or learned concepts? Depending on the activity, both may be valid.

Pause to Apply

Thumbs-Up When Ready is useful for quick activities in which the wait-time between the beginning and the end of the processing might be as short as two to three minutes. The Processing Card is useful for activities that take significantly longer, especially for when a final wrap-up activity depends on all students having completed a certain task. The Processing Card is one of

the suggested items to include inside a TPT folder (see Chapter 3). Having the cards in a folder eliminates the need to pass them out when you need to use them.

Similes

Similes compare two unrelated things. For example, a simile using the topic of TPTs might be “TPTs are like safety nets in that they each protect students from falling through the cracks.” Similes can provide opportunities for abstractly portraying the big picture of concepts in a way that sums up their meaning. To use similes after a teacher-directed presentation, teachers can ask students to make a connection between the topic they’re studying and something unrelated. This activity will need to be modeled and scaffolded by first providing examples of similes and asking students to explain why the simile might be true. For example, a teacher might ask students to complete the following statement: “Adaptations are like bank accounts in that ____.” Or after modeling the activity several times, a teacher can ask students to create their own simile. For example, a teacher might say something like this: “We’ve been talking quite a bit about Thomas Jefferson today. I want you to think about and jot down a simile using something you learned about Thomas Jefferson. Thomas Jefferson was like ____ in that ____.”

How It Works

1. Create similes using some of the topics you are studying.
2. Ask students to formulate an explanation for how the simile might be true.
3. Ask students to share with their partners in small groups or in a Chalkboard Splash so that all can see.
4. After similes have been modeled a few times, ask students to create their own similes based on the topics they are learning about.

How to Ensure Higher-Order Thinking

By creating similes or explaining them, students are being asked to compare components within both items. In doing so, they are analyzing the topic for which you’ve asked them to create a

simile. This activity takes just a few minutes and can ensure that students are understanding the intricacies or the big picture of whatever you're teaching. Try to come up with your own similes for what you are teaching soon, and see if the students can develop explanations for how the statements might be true. Their reasons may be different than what you originally intended to be the rationale behind the simile, but if their reasons make sense, students have just participated in analyzing the concept you have taught. In other words, they have engaged in higher-order thinking.

Pause to Apply

What are you teaching soon that lends itself to the creation of a simile? Do any similes naturally pop in your mind when you're thinking about a particular topic? If so, use them to prompt further connection-making among your students. Consider reserving a spot on your bulletin board, whiteboard, or chalkboard for the following cloze sentence: "[Topic] was like ____ in that ____." On bulletin boards, add the topic using a separate piece of paper or sentence strip. Or if you are using chalkboards or whiteboards, simply fill in the topic. This is a quick way to allow your students to make analogies between what has been learned and something unrelated.

Ranking

Ranking is an activity that requires your students to analyze components of the concepts that you are teaching and then justify their reasons for assigning rankings. It can be done on the spot, or it can be carefully planned to allow for more thorough analysis. For example, after teaching about the causes for the American Revolution, a teacher might list the events studied and ask the students to rank them in order of most important to least important in leading to the American Revolution. Keely Potter and Meghan Babcock used the Ranking activity with quotes from Kate DiCamillo's book *The Tiger Rising*. They asked students to rank the quotes in order of most descriptive to least descriptive in describing the relationship that was developing between Sistine and Rob. Students were asked to cut the quotes from a handout, paste them in order of significance, and then write out their rationale for selecting the order they chose (see the example in Figure 4.5). When analyzing students' explanations for their rankings, Potter was highly impressed with the way that one

student moved from literal interpretation to an understanding of symbolism. “She’s plugging in pieces of the color symbolism. This is the first time she’s used it. I think it’s through the ranking where they’re manipulating the quotes and taking the words out of the book. What the ranking does is it triggers noticing the specifics, moving it, and then changing your mind.” Ranking requires analysis and evaluation. In the example from *The Tiger Rising*, students were being asked to analyze the specifics in each quote, determine its weight in terms of describing a developing relationship, and then defend their choice.

Ranking can also be used to help students synthesize and analyze what they’ve learned. After her students learned about the moon and space travel, 6th grade teacher Julie Wash provided them with a list of 15 random items such as matches, an oxygen tank, water, an inflatable life raft, dehydrated foods, flares, a pistol, and a parachute. In small groups, students ranked the objects that they would take based on each item’s usefulness if students were going to travel to the surface of the moon. The activity triggered conversations involving what would be needed for matches to work, and whether or not these would be useful to take based on what the students knew about the moon. According to Wash, “The discussion that ensues from the ranking is beautiful because you’re forced to make a decision.”

How It Works

1. Select items, concepts, steps, events, descriptive paragraphs, or other things that can be analyzed and ranked within your unit or lesson.
2. Ask students to rank them according to specified criteria.
3. Ask students to provide a justification for the way that they chose to rank the concepts.
4. If students are working on their own, allow them to pair-share or network (see “Networking Sessions” in Chapter 6) regarding how they ranked items and how they justified their rankings. Allow them to process what their peers shared and to change the order of their rankings if they’ve had a change of heart based on new information.

Figure 4.5

Angie's Rankings for *The Tiger Rising*

Angie

The Tiger Rising by Kate DiCamillo

Rank these quotes from most descriptive to least descriptive of what is developing between Sistine and Rob? Defend your choice.

#1
 "I know what contagious means," Sistine said. She looked at his legs. And then she did something truly astounding: she closed her eyes and reached out her left hand and placed it on top of Rob's right leg. "Please let me catch it," she whispered. "You won't," said Rob, surprised at her hand, how small it was and how warm. It made him think, for a minute, of his mother's hand, tiny and soft. He stopped that thought. "It ain't contagious," he told her.

Defend your choice: So Rob knows what the Sistine chapel is and Sistine knows what contagious means. She wanted to be out of the bullies way and be with Rob and do what she wanted to do. That's why she was touching Rob's legs. He probably wanted to tell her about his mom but he just couldn't because that was still in the suitcase..... and they connect.

#2
 By then, Norton and Billy Threemonger had spotted them sitting together and they were moving in. Rob was relieved when the first thump came to the back of his head, because it meant that he wouldn't have to talk to Sistine anymore. It meant that he wouldn't end up saying too much, telling her about important things, like his mother or the tiger.

Defend your choice: He wanted to tell Sistine about his life but didn't know how to put it, I guess. he was glad the threemonger boys came, because then again he didn't want to tell her about his life.

#3
 "I know," said Rob. "I know what the Sistine Chapel is." Immediately, he regretted saying it. It was his policy not to say things, but it was a policy he was having a hard time maintaining around Sistine.

Defend your choice: Rob was the only one out of the school that knew what the Sistine chapel was and Sistine was proud of him. he felt like he was meant to tell Sistine about his mom, the tiger, his life, but he didn't want to. There having a connection.

How to Ensure Higher-Order Thinking

To ensure higher-order thinking, always require that students justify their reasoning. When students in Potter and Babcock's class were asked to rank, they were also asked to justify the reasoning behind their rankings. Students brought out deep metaphorical relationships that were embedded in DiCamillo's book. Even though the use of the concepts of "color" and "suitcase" were not referred to in any of the selected paragraphs, several students pulled out metaphors that had been used earlier in the book to explain their rationale for their rankings. Sixth grader Emily explained her rankings in this way: "He had his suitcase open, but now it's closed. . . . He got to see things in color for once, not blank. He opened his suitcase and got rid of the 'not-thoughts' for a second." Hannah, another 6th grader, described the bullying by two characters in this way: "Those are the gray actions that help close the suitcase, because the blue sorrow of his mom and the orange curiosity of the tiger almost came out." Students made connections to earlier symbols and metaphors used throughout the book and in book-related lessons. Ranking, and the justification of rankings, requires that students review and then analyze learned concepts together, a higher-order thinking process. Students have to understand concepts beyond the literal in order to effectively justify their rankings.

Pause to Apply

Ranking is one of those activities that would work well in classes from preschool to college physics. What units will you be teaching over the next few weeks that would lend themselves well to the Ranking TPT? Think about analysis as a cognitive process. What would you like your students to analyze within the concepts that you're teaching? Would Ranking be a beneficial way of getting the students to consider *most important* to *least important* concepts learned? Or, depending on your content area, students can rank the *most to least influential*, *essential*, *changed*, *affected*, *likeable*, or other rankable features of the concepts or characters presented. Consider polling the class or creating a class bar graph of ranked concepts. Use the results as a spin-off for small-group discussions and then a whole-class debriefing.

Numbered Heads Together

Numbered Heads Together (Kagan, 1989/90) allows all students to be held accountable for being able to relay information that was learned during a group activity. It is a way of ensuring participation and cognitive engagement during such an activity. It is also useful for randomly assigning roles to students within groups.

How It Works

1. Before asking the group to begin their activity, ask them to count off, so that each group member is assigned a number (for example, one through four).
2. It's a good idea to confirm student numbers by asking all of the Ones to stand, then all of the Twos, then all of the Threes, and all of the Fours. This will avoid the problem of numbers not being assigned or being assigned twice within each group. It will also help avoid the possibility of students swapping numbers.
3. Inform the students that all group members will need to be able to present their group's information. Wait until after all group work is completed before informing students of the student number that will be presenting.
4. During the debriefing portion of the activity, call out the number for the team member who will be presenting for the group. Because they don't know in advance which person in their group will be presenting the information, all group members are equally responsible for knowing the information discussed, as well as making sure that their peers know it equally well.

How to Ensure Higher-Order Thinking

Steps for ensuring higher-order thinking will depend on the activity that you choose to do once partners meet. For example, if you are choosing to create groups of four for a Hold-Up, then refer to the Hold-Up activity description (see Chapter 5) for ideas on how to ensure higher-order thinking.

Pause to Apply

Fifth grade teacher Mike Pyle has preassigned numbers according to where students sit. He regularly uses this technique to assign students their roles. Often students themselves would make sure the assigning of roles was equitable. For example, during an observed lesson, a student took the liberty of informing his peers, “Number Three gets to write. Number Two got last time.” This activity can easily be made a staple in classrooms by numbering chairs or desks or simply asking students to count off and write down their numbers. How might you use Numbered Heads Together as a regular staple in your classroom?

Thumb Up/Down Vote

Thumb Up/Down Vote is another one of those quick TPTs that many teachers use frequently. It is simply a yes/no vote with students putting their thumb up if they agree and down if they disagree. This simple TPT provides teachers with a quick reading of the class. Thumb Up/Down Votes are hands-down the easiest on-the-spot TPTs.

How It Works

1. Ask a question for which a yes/no or agree/disagree response is appropriate.
2. Ask students to put their thumb pointing up if the answer is yes, or if they agree. Ask students to put their thumb pointing down if the answer is no, or if they disagree. You can also give in-between options (for example, thumbs sideways if they’re not sure).
3. Don’t forget to follow through. If you ask students to vote, don’t move on until they all have done so.

How to Ensure Higher-Order Thinking

Link your Thumb Up/Down Votes with a quick Pair-Share in which students justify their rationale for voting the way that they did. Add the in-between options. Rarely is anything black or white. Allow students to put thumbs at an angle or sideways to take the middle road. Practice creating statements that can be either true or false depending on the rationale. The key is that students

be able to justify why they selected the response that they selected, even if it was a neutral response.

Pause to Apply

We use this technique regularly in the university setting. We will often present two sides of an argument and ask students to vote on whether they agree or disagree with each side. Or we will prepare a true/false statement (that can be either true or false depending on the justification used) and ask students to take a side. After allowing a brief time for students to justify their reasoning in small groups, we'll ask for volunteers representing the various votes (thumbs up, down, and sideways). With this activity it is important to remember to follow through by waiting for all to vote. We notice that even in college, some students will wait to see whether or not you're going to hold them accountable for voting before they'll actually commit to a vote. As you think about getting evidence of processing concepts being learned, consider creating true/false statements that can use Thumb Up/Down Votes to get students interested in a topic that has been introduced or that you will be introducing.