3
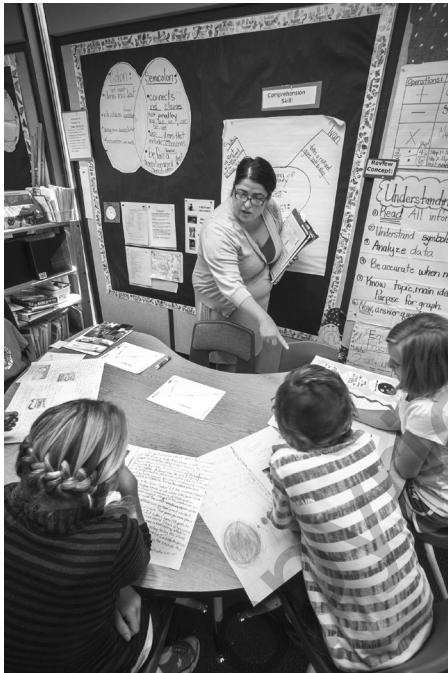
DIRECT INSTRUCTION

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"So why eat insects?" Year 5 teacher Edward Hurley asks his students. The students in his Northern Territory classroom have been studying the history of their aboriginal ancestors. Mr. Hurley has selected an informational article that draws on a more contemporary argument: that insects are an excellent source of protein, and the consumption of termites, crickets, and ants is growing in Western societies, even as it has been practiced for thousands of years by nearly 80% of the planet.

Mr. Hurley recognizes that simply handing students an article and wishing for the best isn't likely to have the impact he wants. The article he selected is a challenge for these 10-year-olds, and the author has a decidedly strong point of view, one that might cause students to simply go with the author's opinion, rather than question it. The teacher has determined that direct instruction is an essential aspect of his teaching. "I've tracked my impact for years now, and it's helped me to figure out how I can maximize my effectiveness." (Mr. Hurley's full lesson plan can be found in Figure 3.1 on pages 52–53.)

To be sure, direct instruction has gotten a bad rap in some quarters. In fact, it might be one of the most misunderstood instructional approaches out there. Impressions about direct instruction usually cluster into four categories:

1. It is scripted and didactic.

2. It is inflexible.

3. It devalues teacher judgment.

4. It relates only to surface or content knowledge.

Yet walk into virtually any effective elementary classroom and you will see direct instruction in action. Don't believe us? Interview colleagues you have identified as being highly successful with their students, and ask them to reflect on the methods they frequently employ. You might ask

- When planning, do you have a clear idea about your learning intentions?

- Do you consider it important for students to know what the criteria for learning success are, and to be held accountable for their learning?

- Is it important to draw students into the lesson by appealing to their interests, curiosities, and wonderings?

- Are modeling and demonstrating skills and concepts part of your repertoire?

- Does checking for understanding have a place in your lessons?

- Should a lesson include guided instruction such that learners can practice new skills and concepts, with feedback from the teacher?

- How important is it to close a lesson with a summary to organize student thinking and consolidate learning?

- Should students have time to try on new learning independently in novel situations?

These are the essence of direct instruction. It is deliberate planning, sharing the notions of success with the students, and continually monitoring your impact.

> To limit one's understanding of direct instruction to highly scripted programs is to overlook the practices that make it highly effective for developing surface level knowledge.

Video 7
Creating Visible Learners: The Visible Learner Seeks, Is Resilient, and Aspires to Challenge

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The *VISIBLE LEARNER*

When asked about reading hard texts, fifth grader Tristen said, "Yeah, they're hard. I mean really hard. But it's like being a detective. You can figure it out, with some help. If it's not a challenge, it can get boring. It's better to better to not totally get it at first because you stay interested and times goes really fast."

Similarly, second grader Justine said, "My teacher says that that I'm really good at trying. I don't give up and that is good because you get to learn things that are interesting."

The visible learner seeks, is resilient to, and aspires to challenge.

Chances are good that the talented teachers you identified affirmed that each of these actions is vital for students' learning. Adams and Engelmann (1996), in their meta-analysis of direct instruction, named each of these as necessary components of direct instruction. To limit one's

Figure 3.1   Lesson Plan for Year 5 Using Texts in Context

Assessed Need: I have noticed that my students need: *To evaluate texts by looking for loaded language to determine an author's opinion.*
Standard(s) Addressed: *Use metalanguage to describe the effects of ideas, text structures, and language features on particular audiences (ACELT 1795)*
Text(s) I Will Use: *"Why Eat Insects?"*
Learning Intention for This Lesson: *We will consider the author's message and point of view so that we can evaluate the information presented.*
Success Criteria for This Lesson: *I will write a response to this information that includes my opinion and supporting evidence, and compare or contrast it with the author's point of view (use argumentation rubric).*

Direct Instruction:

Model: Strategies/skills/concepts to emphasize

Use of loaded vocabulary to convey opinion

Name the strategy, state its purpose, explain its use: Use title to set the author's purpose (poses a question). I am modeling how I look for loaded vocabulary that suggests the author's point of view. When I am reading an opinion piece, I look carefully for terms that show the author's opinion.

Analogy: Loaded words are like weights on a balance scale. They tip the scale in one direction, which is what authors will do when stating their opinion.

Demonstration: Underline words in first paragraph: rightly considered, excellent, plentiful, resource-plentiful, normal, good reason, and incredibly rich source of protein

Errors to avoid: I have to be careful that I don't form my own opinion too soon and stop reading altogether just because I might disagree. I need to keep reading and give the author time to make his case, before I settle on my opinion.

Assess the skill: Write at least one question in the margin that challenges the author's message.

Guide and Scaffold: Questions to ask

1. How does the author use different techniques for conveying his message?

2. The author claims that agriculture consumes 92% of freshwater. What are some of the sustainability implications for NT?

3. What do you want to independently verify in this paragraph? What statements might you challenge?

Assess: These are the students who will need further support

Alkina, Waarar, and Koorine will need me to support them through the second paragraph, while the rest of the class is reading independently.

Dialogic Instruction:

Teacher-Directed Tools

N/A

Student-Enacted Tools

After reading, I will direct all the students who strongly agree with the author to meet in one corner of the classroom, and I will indicate that others who simply agree, who disagree, and who strongly disagree should meet in the other three corners, respectively. The students in each corner will work together to list arguments in favor of or opposed to eating insects as a protein source.

Assess: These are the students who will need further support

Check in with Peter about his opinion, as he will usually just follow his friends rather than consider his own thoughts.

Feedback Opportunities: *I will meet with the smallest group first so that they receive feedback about their list. Given a smaller number, they may need further support.*

Independent Learning and Closure: *Students will write an opinion with evidence exit ticket, using the argumentation rubric as a way to self-assess before submitting. As part of the closure, I will summarize the main points of the lesson and foreshadow the next lesson.*

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understanding of direct instruction to highly scripted programs is to overlook the practices that make it highly effective for developing surface level knowledge. With an effect size of 0.59, direct instruction offers a pedagogical pathway that provides students with the modeling, scaffolding, and practice they require when learning new skills and concepts. John notes that

> EFFECT SIZE FOR DIRECT INSTRUCTION = **0.59**

> when we learn something new . . . we need more skill development and content; as we progress, we need more connections, relationships, and schemas to organize these skills and content; we then need more regulation or self-control over how we continue to learn the content and ideas. (Hattie, 2009, p. 84)

In other words, whether we are 5 or 45, we follow a trajectory that moves from surface learning to deeper learning, and we transfer some of that learning such that we can utilize it in lots of new and seemingly dissimilar situations. It is quite possible that you have applied a teaching technique or two over the years to your own unsuspecting family members, even though no one told you to do so.

Perhaps you are still reluctant to entertain the possibility that direct instruction might be effective. We invite you to try it and evaluate it yourself using your students' learning as a measure. We would be remiss, and would fail to convey the full message of visible learning, if we did not restate that knowing your impact on your students is the truest yardstick you'll ever possess (Hattie, 2009). We don't mean your gut instincts, or your impressions, or your anecdotes, but the fact that you determine the impact of your teaching on your students and adjust accordingly. Finding out what they know and don't know at the beginning of a unit of study, teaching, and then assessing again at the end of the unit furnishes feedback to you about the impact of your teaching.

Imagine meeting a kindergarten student who did not know all of the sound-symbol relationships. It hardly seems fair to ask the student to guess the sounds for each of the letters. Of course telling students the sounds that correspond to given letters does not mean that they will master the language. They also need to practice and receive feedback. Telling students the sound-symbol correlations speeds up the process of students learning to break the code. For example, let's say that there is a small group of five-year-olds in class who do not yet match sounds and letters. The teacher might say, "Today we are going to learn a new letter sound. We use this letter's sound to read words." Pointing to the letter *s,* the teacher could model, saying, "The sound for this letter is */sss/*. Listen as I say this sound */sss/*." The teacher might then provide students with opportunities to see a number of different fonts, each time asking the students to practice the letter sound, saying, "The sound for this letter is */s/*." "What is the sound for this letter?" */sss/* "Yes, the sound for this letter is */sss/*." Over time, and with practice, the student will recognize the letter and its corresponding sound.

But that's not really reading. To read, students have to use their knowledge of sight words and decodable words (words for which the phonics rules work) to make meaning. Following the recognition of individual letters, teachers work on blending. For example, teachers might focus on consonant-vowel-consonant words, such as *sat*, *cat*, *rat*, *bat*, and *mat*. Through direct instruction, the teacher may model sounding out each of the letters in the first word, noting the sound for each of the letters: *s, a, t.* The teacher could say: */s/, /sa/, /sat/*. After the student practices a bit, the teacher might change the onset letter, maintaining the rhyme (at) having the students practice a number of CVC words that end with –*at.* The role of direct instruction cannot be minimized.

This chapter is not about phonics instruction per se. Rather, we will profile the ways teachers provide direct instruction for students who are learning a wide range of skills, strategies, or concepts. Because the first two steps in the list—learning intentions and success criteria—have

already been examined in the previous chapter, we will confine our discussion in this chapter to

- Relevance

- Modeling

- Checking for understanding

- Guided instruction

- Closure

- Independent learning

RELEVANCE

All learners, whether they are 6 years of age or 36-year-old educators, crave relevance. By that, we mean that an important driver of learning is in understanding why the acquisition of a new skill or concept is important in one's life. Think about all of those ubiquitous how-to videos on YouTube. Quite frankly, many of them are boring, unless you actually have a need and desire to learn something. Figuring out how to tie a necktie, or making the new tortilla iron work (something Doug had to figure out one evening), makes those videos infinitely more interesting, because there's a reason to learn something. Moreover, by looking at the video, Doug realized what success looked like and how best to work to this success.

Importantly, relevance facilitates intrinsic motivation, and those who are intrinsically motivated to learn tend to persist in their learning when they confront challenges (Meece, Anderman, & Anderman, 2006). Relevancy doesn't mean that all your lessons need to ensure success in a career, but rather that learners can see how the learning intentions apply in their lives. Why are syllables important? They help us spell more accurately. Why are adjectives important? We can use them to write more descriptively so that our readers understand our ideas.

Kindergarten teacher Saul Romero knows that relevancy is key for his young students. As part of the opening of his lessons, he posts and discusses the importance of the lesson using a sentence frame: "This helps me _____." For instance, at the beginning of a lesson on writing lowercase letters that descend below the line (*g*, *j*, *p*, *q*, and *y*), Mr. Romero set the learning intention and success criteria, and then he said, "It's always important that we think about why we are learning something. If you're not sure, you should always ask, 'Mr. Romero, why are we learning this?' I want to make sure we can always explain why we are learning something. I'll read this sentence to you, and then we will read it together: "I practice

Video 8
Relevance

https://resources.corwin.com/ VL-LiteracyK-5

> Relevance facilitates intrinsic motivation, and those who are intrinsically motivated to learn tend to persist in their learning when they confront challenges.

printing letters that go below the line because it helps me read my own writing." After Mr. Romero repeats it, the students read it chorally, and he moves forward with the lesson.

The *VISIBLE LEARNER*

Keoni, a student in Mr. Romero's kindergarten class, asks his teacher during a small group conference, "After we learn letters below the line, can we learn letters that go above the line?" Mr. Romero responds, "That would be a very interesting lesson. I think we should talk about it as we learn more about letters. Thank you, Keoni. And for this lesson, which letters are you comfortable writing and which ones do you still want to learn?"

Keoni responded, "I am not good with any of them. But I will be. I want to start with the letter *p*. Can we practice that one?"

Visible learners can articulate their next learning steps.

TEACHER MODELING

There was a fascinating series of studies that began with neuroscientists in the 1990s who noticed something surprising. When they measured brain cell activity of monkeys that were watching the movements of other monkeys, such as picking up a banana, they found that specialized brain cells called motor neurons in the observing monkeys were active, even though these observing monkeys were sitting still. Interestingly, these were some of the same neurons that became active when the observing monkey was the one doing the motion. So, the monkey *watching* and the monkey *doing* used a lot of the same brain cells, and the cells were similarly active (Rizzolatti & Craighero, 2004). Later, researchers showed that these mirror neuron systems in the human brain function similarly to understand the intentions of others (Iacoboni et al., 2005). When you observe someone else do something you use many of the same neural pathways as when you perform the same action yourself. These mirror neuron systems may help explain the power of teacher modeling, not to mention how babies learn and why fads and trends spread so quickly.

Teaching Takeaway

Model for students such that they can approximate the thinking of an expert.

Teacher modeling processes can trigger similar responses in observing students. Through modeling, students can be taught to think aloud about their own cognitive decision making and problem solving, providing teachers with further insight into students' grasp of skills and concepts. Providing examples of thinking is useful, but effective modeling includes an explanation of why teachers are doing what they are doing, so that students understand *how* the teacher was thinking, not just *what* the teacher was thinking.

Pair With Think-Alouds

When teachers explain their expert thinking in a way that students can understand, students are better able to imitate the thinking of their teachers. We're not looking for students to simply replicate the work of the teacher but rather to explore the ways that other people think. Thinking is invisible, so teachers have to talk about their thinking. By listening to a teacher think, students are guided through the same cognitive processes that the expert uses, as if they were apprentices. Teachers who open up their minds to describe their cognitive and metacognitive processes for their students call these narrations *think-alouds* (Davey, 1983). As noted in Figure 3.2, there are common steps in teacher think-alouds (Fisher, Frey, & Lapp, 2009). Of course, teachers don't use all of these each time they think aloud. They pick and choose the aspects of the think-aloud necessary to build students' strategic thinking.

> By listening to a teacher think, students are guided through the same cognitive processes that the expert uses, as if they were apprentices.

The "I" and "Why" of Think-Alouds

Think-alouds use "I" statements. A lot of teachers say "we" or "you" in their explanations, but "I" statements—using a first-person pronoun—do something different and more powerful for the brains of students. They activate

Figure 3.2 Design a Think-Aloud

Possible Features to Model	Features You Plan to Model
1. Name the strategy, skill, or task.	
2. State the purpose of strategy, skill, or task.	
3. Explain when the strategy or skill is used.	
4. Use analogies to link prior knowledge to new learning.	
5. Demonstrate how the skill, strategy, or task is completed.	
6. Alert learners to errors to avoid.	
7. Assess the use of the skill.	

Source: Adapted from Fisher, D., Frey, N., & Lapp, D. (2009). *In a reading state of mind: Brain research, teacher modeling, and comprehension instruction.* Newark, DE: International Reading Association.

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the ability—some call it an instinct—of humans to learn by imitation. We have worked with teachers who actually think that they are using "I" statements, when they are saying the word "you" (a second-person pronoun) in their explanations. Or, they will start their think-alouds with "I" and then switch to "you" at some point in their explanations. The second-person pronoun is directive; the first-person pronoun signals the sharing of intentions.

These people are not delusional. Rather, teaching is such a complex skill that it can be difficult for teachers to use the exact words that they'd planned on using, or to remember exactly what they said at a time when they were also thinking about 32 (or more) young people, considering formative evaluation results, wondering whether they'd been talking for too long, and thinking as an expert, all simultaneously. Allowing teachers to video- or audio-record their think-alouds, and then giving them the opportunity to watch or listen to the recording, has been very useful in helping teachers over this hump. Knight (2014) and his colleagues at the University of Kansas have analyzed the work of teachers and instructional coaches as they interacted with video and audio recordings of lessons, and found that these tools propelled improvements in instructional quality more effectively than lesson debriefing alone. Similar effects were seen with individual teachers who coached themselves by watching videos of their own teaching. Advancements in digital technology have made it possible for teachers to wear a small device that remotely signals the video camera to turn and follow them as they teach, eliminating the need for another person to operate the camera.

Another strategy is for teachers to use written notes that include the word *because*. It's important to explain *why* you're thinking what you're thinking. If not, students experience an example but do not know how to do this on their own. Using *because* reduces the chance that students will be left wondering how you knew to do something or why you think a certain way. For example, while modeling the comprehension strategy of predicting, you might say, "I can make the following prediction [insert the prediction] because the author told me. . . ." A teacher modeling word solving might say, "I am going to try to figure out this word by looking inside the word for prefixes, suffixes, and bases, because many English words have clues inside them that help readers figure out their meaning." Including the *why* and *because* while modeling increases the chance that students will be able to imitate the expert thinking they have witnessed, because they are provided with examples and the reasons for those examples. Thinking about your thinking is a metacognitive act, and students will start to think more metacognitively when they hear others, including their peers, do so.

First-grade teacher Iman Hakim's students have been working on developing their ability to infer the emotions and motivations of characters using multiple clues, including words, characters' actions, and the visual clues to be found

"I" statements do something different and more powerful for the brains of students. They activate the ability—some call it an instinct—of humans to learn by imitation.

EFFECT SIZE FOR METACOGNITIVE STRATEGIES = **0.69**

in the illustrations. This is a complex skill that is developed over many lessons, so Ms. Hakim routinely models how she applies this comprehension skill using the many texts they read. The previous day, she read *Music Over Manhattan* (Karlins, 1998), a picture book about a boy who gains confidence by learning how to play the trumpet. The story features two young cousins who are at times jealous and resentful of each other's accomplishments. Now that her students have a foundational knowledge of the arc of the story, Ms. Hakim returns to the first page to model and think aloud about how she understands the clues. (Her full lesson plan can be found in Figure 3.3 on the next page.) After establishing the learning intention and success criteria, she begins,

> *Today I'm going to model and think aloud about how I use the words the author uses, the actions of the character, and the picture clues to help me figure out how a character feels.* [names strategy]

> *We've done this many times before, and today I'm going to use it with* Music Over Manhattan, *the story we read yesterday.* [purpose]

> *Authors can't give us every detail, because if they did every story would be really long and kind of boring. The author and the illustrator give us clues to find, just like a detective who's trying to solve a mystery.* [analogy]

> *My clues are words, actions, and picture details.* [explains use]

Ms. Hakim reads the first page aloud—it is a passage consisting of seven sentences—and then she demonstrates where she locates clues.

> *When I read I keep my eye out for clues, like a detective. I see a word clue! The author says Bernie is grumpy. I know grumpy means he's not happy, but I wonder why? I expect that his actions will show me how he feels, because authors will let us see how a character feels through actions. It says Bernie mashed the potatoes harder* [makes a gesture of pushing her fist into the palm of her other hand to simulate mashing potatoes]. *Sometimes when I am not happy I push things harder than I really have to. But I still don't know why he feels grumpy. I'll look for another clue.*

Rereading, she pauses on the phrase "but any minute perfect Cousin Herbert would arrive."

> *THAT'S an important clue! People don't say their cousin is "perfect" unless they mean it in a sarcastic way. Like when my sister and I would argue when we were little, and she would say, "You think you're so perfect!" and I would know she meant the opposite. She would be angry with me. I am going to say that sentence again and use my voice like my sister did* [repeats the sentence using a sarcastic tone].

Figure 3.3   Lesson Plan for First Grade Inferring the Emotions and Motivations of Characters Using Multiple Clues

Assessed Need: I have noticed that my students need: To infer characters' feelings using words, actions, and pictures.

Standard(s) Addressed: RL.1.4: Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.

Text(s) I Will Use: Music Over Manhattan (Karlins, 1998)

Learning Intention for This Lesson: We will look for word clues and picture clues in this book to figure out how Bernie and Herbert are feeling.

Success Criteria for This Lesson: I can find and explain evidence of these characters' feelings on my graphic organizer.

Direct Instruction:

Model: Strategies/skills/concepts to emphasize

Use the first page of the book to model my thinking about the word and visual clues I find about Bernie's feelings. Since we read the entire book yesterday, this will be a closer inspection of the text.

Name the strategy, state its purpose, explain its use: Authors don't explain every detail of a story. If they had to tell us everything, the story would be really long! They expect the reader to infer the character's feelings by using the character's words, actions, and pictures. I am going to look closely at the first page of the story to find these clues.

Analogy: When I read, I am always looking for clues like this, just like a detective does when she's solving a mystery. I gather up the clues to figure out what might be happening.

Demonstration:

Words to model: grumpy, perfect Cousin Herbert (sarcasm)

Actions: "Bernie mashed [the potatoes] harder."

Visual: Bernie's frown, creased forehead, and sideways glance

Errors to avoid: If I don't match my tone of voice with the character's feelings, I might miss the inference the author wants me to make.

Assess the skill: Read the passage again using the correct vocal tone.

Guide and Scaffold: Questions to ask

(pp. 3-4): What are the words, actions, and picture clues that tell us how Bernie is feeling?

(pp. 11-12) What clues can we find that show us how Herbert's feelings have changed? Why do we think they have changed?

(pp. 14-17) Herbert's behavior is awful now. But why? What words, actions, and pictures help us understand this?

Assess: These are the students who will need further support

I will reread the text with Aubrey, Ignacio, David, and Alexis because they struggled with the fantasy element of the story yesterday when we read it for the first time.

Dialogic Instruction:

Teacher-Directed Tools

Students will complete a simple graphic organizer about Bernie and Herbert, listing three other confirming pieces of evidence (words, actions, or visual clues) that explain their feelings.

Student-Enacted Tools N/A

Assess: These are the students who will need further support N/A

Feedback Opportunities: I check for understanding with students at tables 2, 4, and 5 to listen to their evidence. These same students will then partner with classmates at Tables 1, 3, and 6 to share their evidence.

Independent Learning and Closure: Students are finding evidence on their own, and after meeting with partners, will add any new examples. They will be provided opportunities to reflect on this experience and ask questions about areas of confusion and what they still would like to learn.

Ms. Hakim continues, now demonstrating how she uses picture clues. She and the children study the face of Bernie, noticing his scrunched up forehead and frowning expression.

> *Look at how his eyes are going sideways in little slits!* exclaims Ms. Hakim. *That's another great clue for me that Bernie is not happy that cousin Herbert is coming over to his house for dinner, and that he is feeling like he is not as good as his cousin.*

She then explains that she needs to put these clues together to avoid an error:

> *When I read, I hear a voice in my head, like I am reading to myself. But if I don't let the voice change using the clues I find, I might miss the meaning. So I am going to read it one more time, and I want to use a grumpy voice as I read to myself.* [rereads] *Yes, that worked. My voice matched how the character seems to be feeling, and I figured out how Bernie felt by paying close attention to clues such as the words, actions, and pictures of the character.* [assess the skill]

In the next part of her lesson, Ms. Hakim will use questions to scaffold their learning, in order to check for their understanding of the comprehension strategy she modeled for them.

STUDENTS SHOULD THINK ALOUD, TOO

Have you ever had a student come to the front of the room to show how she figured out a solution, only to watch her explain it in a way that guarantees nobody else will learn from it? Students leading the class through their solution paths can be very powerful, and the way this is done shouldn't be left to the pedagogical skills of an untrained child. Rather, if you want students to explain their thinking or their solution, you will need to teach them how to do this explicitly. One way to do this is to debrief after your think-alouds, explaining what you did. Figure 3.4 includes a checklist useful in self-assessing aspects of a think-aloud. If you use this checklist to debrief your think-alouds, your students can use it as a guide when they are leading. Other students can hold the demonstrator accountable for following the guidelines, and, ideally, they will hold you accountable when you do yours as well.

> EFFECT SIZE FOR SELF-VERBALIZATION AND SELF-QUESTIONING = 0.64

The third-grade students in Kiara Mitchell's class have been studying the works of artists featured in the book *Honoring Our Ancestors* (Rohmer, 1999). In this book, 14 contemporary artists explain a painting of theirs that features a family member, and they discuss their inspiration. For example, artist Mark Dukes paints himself in a portrait of Ethiopian

Figure 3.4   Student Think-Aloud Checklist

☐ Let your listener(s) read through the entire question or text before you begin your think-aloud.
☐ Use "I" statements.
☐ Explain why you think you are correct, or how you know you are.
☐ Speak loudly enough for your partner(s) to hear.
☐ Don't go too fast or too slow.
☐ Make sure your think-aloud doesn't go on for more than 5 minutes.

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saints, armed with a paintbrush because "that enables me to travel back in time" (p. 10). Ms. Mitchell and her class have read all of the selections previously, and she wants her students to use the think-aloud checklist to explain how their thinking uses visuals from the book.

To refresh their memories, she reviews the checklist using one of the readings from the book. "I chose Devon to be my partner because I've noticed she can get distracted easily. This gives her a really important job as we fishbowl for the class," said the teacher.

After completing the teacher think-aloud, Ms. Mitchell hosts a short discussion, using questions to guide students' thinking in order to circumvent possible difficulties. She asks students, "What did you notice that I did when we got stuck?" and "Which words did we use to provide you with information about our thinking?" After the class discussion, she has each student partner with another student to think aloud about a painting and accompanying text of their choice from the target book. Ms. Mitchell's lesson is in Figure 3.5 on the next page.

If you want students to explain their thinking or their solution, you will need to teach them how to do this explicitly.

The *VISIBLE LEARNER*

Jacy and Leslee, students in Kiara Mitchell's third-grade class, do not tell each other answers. Rather they support each other through questions and prompts. They provide hints to one another, much like their teacher has modeled. For example, when Jacy gets frustrated with a section of the text, Leslee says, "We got this. Just take it slow and go back to read it over. This is interestin' so it's worth it to get it right."

Later, when Leslee writes some vocabulary words in her personal journal and spells them incorrectly, Jacy says, "I think you want to check those again. I'm not sayin' which is right or wrong, but I think it would be good to check again."

Visible learners positively supports their peers' learning.

Jacy and Leslee choose artist Caryl Henry's portrait of herself with her grandmother, a cosmetologist, and Madame C. J. Walker, the first Black female millionaire in the United States. (The artist's grandmother studied at Madame Walker's School of Beauty Culture in 1916.) After the girls reread the checklist, Jacy begins:

> *The grandma is in the middle of the three ladies, and I know I'm right because she looks like the photograph on the other page* [points]. *And the lady on the right is the person who made the painting. She doesn't look so much like her picture, but it says right here* [points at text]

Figure 3.5   Lesson Plan for Third-Grade Lesson

Assessed Need: I have noticed that my students need: To use academic language to express ideas.
Standard(s) Addressed: Oral Language 3.1: The student will use effective communication skills in group activities. Oral Language 3.2: The student will present brief oral reports using visual media
Text(s) I Will Use: Honoring Our Ancestors (Rohmer, 1999)
Learning Intention for This Lesson: We will use spoken language and visuals to share ideas with others.
Success Criteria for This Lesson: Think-aloud checklist

Direct Instruction:

Model: Strategies/skills/concepts to emphasize

Review the student think-aloud checklist to reinforce knowledge of elements.

Name the strategy, state its purpose, explain its use: I am going to model how I use the think-aloud checklist to help me remember all the things I should do when I think aloud for a partner. When I remember to do these, I help my partner understand

Analogy: When I go to the grocery store, I have a list so I don't forget to buy something I need. The think-aloud checklist helps me remember everything.

Demonstration: [think-aloud using the painting by Nancy Hom (p. 17)] I am going to think aloud today with Devon. First, I'll read the checklist to myself to remember all the elements. The first reminder is to *let the listener read first before I start talking.* I know we read about this artist yesterday, so I can start. Next, use "I" statements. When I look at the painting, I see how large her father's arms are. I remember in the text she talked about her dad being so strong "from lifting huge plates of food." *Explain why you know you are correct.* I know I am correct because I can find the sentence with that information.

Errors to avoid: One mistake would be to talk too softly. It would be hard for my partner to hear if I am too quiet.

Assess the skill: I will check with my partner to ask how I have done. Devon, can you give me feedback using the checklist?

Guide and Scaffold: Questions to ask

What can be hard about thinking aloud?

How will you know you have been successful?

If you are having a difficult time, how could you get help?

Assess: These are the students who will need further support

I am thinking aloud with Devon as my partner so she can be more actively engaged in this lesson.

Dialogic Instruction

Teacher-Directed Tools

All students will complete the checklist with their partners to rate how they did

Student-Enacted Tools

N/A

Assess: These are the students who will need further support

Listen to Devon and Katie as they discuss their checklists to make sure Devon is applying new concepts.

Feedback Opportunities: I will listen to the think-alouds that Leslee, Darius, Jacy, and Jayden perform with each other. The rest of the class will get written feedback on their checklists.

Independent Learning and Closure: Students will select a painting in the book or online and use the visual and text to support their think-aloud commentary. They will receive feedback from their peers using the checklist and note at least one area in which they would like to grow.

Available for download at **https://resources.corwin.com/VL-LiteracyK-5**

> *that she is pictured on the right. So the directions and the photographs helped me. Now it's your turn.*

Now Leslee continues:

> *When we read the story, Ms. Mitchell told us that the artist didn't like hot combs when she was little. She wears her hair in dreads* [dreadlocks] *now so she don't need a hot comb. That's in this sentence* [points]: *"I threw away my combs and went natural with dreadlocks"* (p. 14). *Look at the painting! She got those combs on fire!*

The girls then evaluate each other's performance, agreeing that they both used "I" statements, spoke loud enough to be heard, and used the text to show they were right.

And we didn't talk too long and get all boring! said Jacy.

CHECKING FOR UNDERSTANDING

Effective teachers check for understanding throughout their lessons, using a variety of approaches, especially by examining the oral and written language of their students. Durkin (1978/79) studied reading comprehension instruction of elementary teachers and found that by far the most common method for doing so was questioning. She observed teachers identified by district administrators as being "exemplary" in 39 classrooms, and she found that these teachers were in fact "primarily mentioners, assignment-givers, and interrogators" (1981, p. 454). Durkin argued that the effective teaching of comprehension required modeling and thinking aloud, feedback, and especially questions that scaffold and probe, rather than interrogate.

Video 10
Checking for Understanding
https://resources.corwin.com/VL-LiteracyK-5

Use Questions to Probe Student Thinking

Questions that check for understanding are a crucial aspect of direct instruction. But the best teachers probe deeper, for more specific information. They don't just want to know whether or not a student understands something. If the student does understand, they want to see if he can explain his thinking and apply what is understood. If the student doesn't understand, these teachers probe deeper to find the point at which a misconception, overgeneralization, or partial understanding led her astray. Lurking in the back of the teacher's mind is the question, "What does this child's answer tell me about what he or she knows and doesn't know?"

The purpose of the question matters. Closed questions that constrict student speculation limit student thinking to trying to determine what the "right" answer might be (Doug calls it, "Guess what's in the teacher's brain.") A series of closed questions strung together is called a *funneling pattern,* because the purpose is to lead the student through a procedure without adequate attention to connections (Herbel-Eisenmann & Brey-fogle, 2005). In contrast, open questions require students to notice their own thinking, and a string of these is called *focusing questions.* The difference at times may seem subtle, but it is the outcome that is more telling. A series of funneling questions results in channeling the student toward the predetermined correct answers, with little room left for students to consider possibilities and notice their thinking. On the other hand, a series of focusing questions can open up student thinking, and provide you with more insight into their thought processes. Fourth-grade teacher Gloria Hansen worked with her grade-level colleague Diane Lincoln, a first-year teacher, to develop focusing questions that would open up student thinking. After examining questions Ms. Lincoln had developed to use with the following day's reading, they discussed the concept of funneling and focusing questions, and then changed Ms. Lincoln's questions just enough so that the revised ones might prompt richer responses (see Figure 3.6). After school the next day, Ms. Lincoln came back to Ms. Hansen's room and said, "I was surprised at how much longer their answers were when I asked those focusing questions. I learned a lot more about what they were thinking."

GUIDED INSTRUCTION

Using focusing questions is an excellent way to begin guided instruction, because it has the potential of expanding, rather than constricting, student thinking. Direct instruction requires that the teacher scaffold—only as much as needed—through strategic questions, prompts, and cues, with the goal of elevating students' learning. It does *not* involve giving students the answers, or telling them how to solve a problem. Many teachers default to

Effective teachers don't just want to know whether a student understands something, they want to see if the child can explain his thinking and apply what is understood.

Teaching Takeaway

Use questions to better understand student misconceptions or partial understanding.

EFFECT SIZE FOR QUESTIONING = **0.48**

Figure 3.6   Funneling and Focusing Questions

Funneling Questions	Focusing Questions
What did the character mean when she said, "I need a change of scenery"?	The character said he needed a "change of scenery." What might have caused him to say that?
What two problems is the character facing at this point in the story?	Are there any connections you could make between that remark and any problems the character might be having?
Which problem would be solved if the character left town? Which problem would be made worse?	Would a change of scenery solve the character's problems or make them worse? Why do you say so?
Can you predict what the character will do next?	Based on what you know about the character so far, what might he do next? Do you believe that is a wise thing for him to do? How would you advise him?

a pattern of questioning that has been labeled initiate-respond-evaluate, or IRE for short. In an IRE pattern, a teacher asks a question, a student provides an answer, and the teacher decides whether the answer is right or wrong. This is Durkin's (1978/79) major criticism of teachers' questioning—that it too often consists of interrogation, rather than activation of thinking.

One of the problems with IRE is that students tend to stop thinking the minute you tell them they're right (Cazden, 1988). More damaging, however, is that giving students feedback that is limited to the correctness of their answers or methods hurts their long-term understanding and prevents them from transferring their knowledge to new situations (Schroth, 1992). They also learn that learning is about knowing the answers to questions—knowing lots. In contrast, what they need to learn is as much about knowing how, addressing Why as well as What questions, and welcoming what they do not know as an opportunity for future learning. Most harmful of all, however, is feedback that is limited, infrequent, and focused on the personal attributes of the student, rather than on the task, process used, and ability to influence their own learning. It takes away their ability to self-regulate (Hattie & Timperley, 2007). When you're guiding students' learning using questions, prompts, and cues, let students do as much cognitive work as possible to evaluate their own learning—especially if they're correct. When they ask you, "Is this right?" reply, "Tell me why you think it's right and I'll listen."

> Giving students immediate feedback on the correctness of their answers or methods hurts their long-term understanding and prevents them from transferring their knowledge to new situations.

Teaching Takeaway

Structure the feedback so they have the space to hypothesize, reflect on their own learning, and evaluate their own approaches as well as those of their peers.

EFFECT SIZE FOR FEEDBACK = **0.75**

When we ask teachers to explain what they mean by feedback, they most often answer by saying feedback relates to the questions *Where are we going?* and *How are we going?* Indeed, these are critical and powerful questions. Students, however, see feedback as answering the question *Where to next?* They want to know where they go next—the action, the consequence—and of course this is more valuable when the *Where to next* question is based on the *How am I going* and *Where am I going* questions. These could be the three most important questions to keep in mind when questioning in the class.

And most critical of all is to increase the focus on "where to next" feedback. Many students will claim they did not receive feedback if this aspect is not included, so you could spend hours giving "where am I going" and "how am I going" feedback, only to be thwarted because the students are then seeking "where to next" feedback. (Of course, "where to next" should be based on the other two feedback questions.)

One way to develop skills in this area is to video-record your own teaching and then watch the video later, ideally with another person, so that you can analyze your moves and determine if you are guiding students, using direct explanations, or telling them what to think.

Structure the feedback so they have the space to hypothesize, reflect on their own learning, and evaluate their own approaches as well as those of their peers.

At times, of course, students' responses are incorrect or show only a partial understanding of the concept or skill in question. This is point of departure that separates expert teachers from novices. Nonexpert teachers respond more often with corrections, rather than asking another question or two to uncover students' thinking. The knee-jerk reaction is to give students the right answer—"No, that word is *implements*"—rather than being confident enough to explore why the student might have misread it. When the teacher says, "Read that sentence again and think about the meaning. Does *interest* work in the sentence?" You're posing a question, one that should cause the student to think. At the same time, you're providing a prompt (a reminder) for the student to monitor sense-making while reading.

If that isn't sufficient, and the student is still stumbling, then provide him with a cue, which is a more overt signal designed to shift his attention to a physical space or cognitive task (e.g., pointing to the word wall). A possible cue might be to cue the student to look in the glossary to check the word. Now you have a lot more information to work with: Is the difficulty because he isn't monitoring his understanding, or he doesn't have a good schema of the topic, or possibly that he doesn't know how to repair his errors when the meaning is lost? These are the "pivotal events"

that Ross and Gibson (2010, p. 197) attribute to expert teaching—the ability to rapidly hypothesize what instructional move should come next to move student learning forward. Simply correcting errors over and over isn't going to result in learning that lasts. However, getting students to think metacognitively, although it takes a bit longer, will.

Formative Evaluation During Guided Instruction

The benefit of noticing errors and misconceptions is that it allows for additional instruction. By observing and taking notes, you'll know which groups or individual students are stuck or need help, which ones are flying and need enrichment, and who misunderstands the concepts or lacks foundational knowledge that you will need to scaffold for them. When you do move in to guide the learning, you will be able to do so in a strategic way that provides the right amount of feedback, differentiation, and support that your students need—and not the excessive scaffolding that takes the rigor and engagement out of your math tasks.

As the first-grade reading comprehension lesson evolved, Ms. Hakim transitioned from modeling and thinking aloud to guided instruction, using a series of questions to probe her students' thinking and monitor their understanding. She had prepared a few of these scaffolding questions in advance, primarily focusing ones that drew their attention to incidents in the book when Herbert reacts badly to Bernie's growing confidence:

1. (pp. 3–4): What are the words, actions, and picture clues that tell us how Bernie is feeling?

2. (pp. 11–12) What clues can we find that show us how Herbert's feelings have changed? Why do we think they have changed?

3. (pp. 14–17) Herbert's behavior is awful now. But why? What words, actions, and pictures help us understand this?

She uses these questions to check in with children sitting at tables 2, 4, and 5. They'll later "pollinate ideas" as the teacher calls it, by partnering with students at Tables 1, 3, and 6.

INDEPENDENT LEARNING

The learning continues, and in fact deepens, when students are able to employ what they have been learning. This can occur in four possible ways (Fisher & Frey, 2008):

- Fluency building

- Application

- Spiral review
- Extension

Fluency Building

Fluency building is especially effective when students are in the surface learning phase and need spaced practice opportunities to strengthen automaticity. For instance, young children who play games using flash-cards of sight words, or who read books independently, are engaged in fluency-building independent learning.

Application

Application is arguably the most common approach to independent learning. Students engaged in application of learning are consolidating their knowledge through the transfer of skills to contexts similar to the situation in which they initially learned. As an example, Mr. Hurley's Year 5 students wrote an exit slip using evidence to support their opinion about the author's advice to eat insects. Like the author, they are applying loaded language to support their claims.

Spiral Review

Spiral review, a third approach to independent learning, is one in which students revisit previously mastered content in order to prevent learning recidivism due to infrequent use. For instance, fourth-grade teachers Gloria Hansen and Diane Lincoln keep the learning alive by requiring that their students compare previously read class texts to current ones.

Ms. Lincoln said, "This is something Gloria has been using for several years, and I really see the benefit. When I'm teaching a literary device like foreshadowing, say, I not only ask them about how it's being used by the author in the text we're reading right now, but also to give me another example."

Ms. Lincoln's students, she noted, end up consulting texts read earlier in the year to locate examples. "What I really like about this is that it casts a new light on something they've already read. They realize that the author was using foreshadowing all along, but now they're noticing it."

Her colleague, Ms. Hansen, added, "There's so much I could potentially teach with each text, and it used to be hard for me to narrow it down. You know, to decide what to leave out. But with spiral reviews, I get to teach those concepts again and again, instead of just using one text as an example. They can't transfer their knowledge if they don't get lots of chances to see patterns in how text is universally constructed."

Extension

Extension is a fourth kind of independent learning in which students are asked to use what they have learned in a new way. This often requires that they research on their own and find additional information. The text-dependent question, "What does this text inspire you to do?" (Fisher & Frey, 2014b) is an organizing tool that can be used to design extension learning. Independent learning through extension includes

- Writing

- Presenting information to peers

- Participating in debates and Socratic seminars

- Engaging in investigations

This is especially effective when the text has been utilized over multiple lessons, including those that require close and critical reading. Third-grade teacher Kiara Mitchell did just that as an extension of the study her students did with *Honoring Our Ancestors*. Her students were still learning how to do investigations, so Ms. Mitchell curated websites using Sweet Search4Me, a search engine designed for students. The sites included are vetted by teachers, and Ms. Mitchell was able to add specific sites for her students to use.

"I had them research the artists in the book, but I wanted to limit their searches so they returned a manageable amount of results and had content appropriate for 8-year-olds," she said. One team investigated JoeSam's current work, locating commissioned outdoor public art at public libraries, a children's center, and several train stations around the country.

One team member, Marcus, said, "When we read about him he said he liked bright colors 'cause his aunts from Trinidad did. And boy, did we see bright colors!"

His friend Roberto added, "They're sculptures, but they're like his paintings, but bigger!"

CLOSURE

A robust lesson will fall short of its full potential if the lesson doesn't include a solid closure. This is the time to return to the learning intention and success criteria in order to reestablish purpose and consolidate new knowledge. Importantly, it doesn't necessarily mean the temporal end of

> **Teaching Takeaway**
>
> Use spiral review to foster transfer.

the lesson. Rather, consider it to be a time when you are checking for understanding more globally and inviting students to consider their own learning so far. Lesson closure can include a combination of the following:

- Revisiting the learning intention and success criteria

- Reviewing the key points of a lesson

- Posing a question that asks students to summarize (e.g., "Tell me the three most important ideas you learned this morning.")

- Inviting students to draw conclusions or to notice similarities and differences based on the learning

- Asking students to rate their level of understanding (e.g., a fist-to-five method displaying the number of fingers that correspond to the level of understanding)

- Inviting further clarifying questions from students

- Previewing future learning opportunities and lessons

- Exhibiting evidence of student learning

- Creating a smooth transition to the next lesson

Using a direct instruction approach, Edward Hurley has led his Year 5 students through modeling with think-alouds, guided instruction, and peer collaboration as they read and discussed the informational article on eating insects. Satisfied with their progress through frequent checks for understanding, he will soon be releasing them to further independent learning as they compose an exit ticket summarizing the author's use of loaded language in the informational article, using evidence from the text. However, before he does so, he spends a few minutes on closure to further consolidate their learning and invite self-assessment of progress toward goals. He begins with questions about the content, asking them for the most surprising facts they learned, before turning his attention to the learning intention, which concerned looking for loaded language to determine the author's point of view.

"I'd like to hear a summary of that," says the teacher.

Kyana responds, "Authors want you to know what they think, and they can use words that tell you their opinion. Like *rich source* and *good reason* show this author thinks it's a good idea."

After fielding a few more responses, he tells his students, "Check the writing goals you made for yourself on Monday. We're going to be writing in a few minutes, so now is the time to check them for yourself."

The *VISIBLE LEARNER*

It is important for students to know what they are learning and why, but equally important is for students to know *how* they are learning. If students are able to articulate the strategies that they are using to learn, they are more likely to try those approaches again when the learning gets hard.

Kaila, a fourth grader, is learning when to summarize. She knows how to summarize but does so only when her teacher asks her to. As she says,

> I have to think about the text and then see if I need to keep a summary. This makes me think about the purpose for the reading and what I will do with the reading. Like, I was reading *Fish in a Tree* because my friends read it. I didn't really need to summarize but I wanted to remember a few places to talk about. But when I was reading about climbing Mount Everest, I had to keep a better summary because I needed information for our group presentation. But then, later, when we were in reciprocal teaching, I had to be really careful because my job was to summarize and I had to think about the most important information so that I didn't waste time for my group.

Visible learners can talk about how they are learning—the strategies they used to learn.

CONCLUSION

Direct instruction has a solid track record for promoting acquisition, consolidation, and transfer of learning through intentional lesson design that uses an explicit approach. Although sometimes narrowly defined as a heavily scripted program, direct instruction has elements that trace their roots to Madeline Hunter's (1982) model of mastery learning. These elements of instruction include clear statements about the learning intention and success criteria, teacher modeling and think-alouds, guided instruction through scaffolding, checks for understanding, closure, and independent learning. These practices form a solid set of practices for making skills and concepts clear to learners. However, we do not suggest that these are the only valuable teaching practices. In the next chapter, we will turn our attention to the value of dialogic teaching, instruction that requires the effective use of talk to accomplish the learning. You might be wondering about the difference between direct and dialogic approaches, given that there has been a lot of talking described in this chapter. In the next chapter, we hope you'll see a different type of talk, one in which the discussions rely on argumentation and inquiry.