Chapter 5

Academic Skills and Interactive Modeling

Tips for Success With Academic Skills

Points to Remember

Chapter 5

Academic Skills

Interactive Modeling can help students master a wide variety of academic skills, such as using an index to locate information, following the steps of a mathematical algorithm, and discussing a science topic with a partner. Interactive Modeling can bring these skills to life in the classroom because students get to actively observe, describe, and practice each skill. As a result, children become more engaged in how they work and learn.

Without active engagement in learning these skills, it's easy for students to miss critical information. When my nephew was in first grade, my brother and sister-in-law asked me to do some individual work with him because he was struggling to learn to read. One day, we were working on some reading strategies and he said, "You know what, Aunt Margaret, I think my teacher has been talking about this same stuff."

It turns out that my nephew hadn't realized that what his teacher was saying at the front of the classroom applied to him and his reading. Once he made that connection, he began paying more attention at school. His parents, his teacher, and I also checked in on his understanding more regularly, and his reading and performance in other academic subjects quickly improved. Interactive Modeling can keep us from talking on and on *at* our students and instead draw them in, allowing them to make discoveries on their own, with active guidance from us.

When I taught kindergarten, I used Interactive Modeling to teach children a basic strategy for sounding out words. This lesson came after children had learned letter names and sounds and had developed an awareness of how sounds make up words. When they were ready, rather than just give a little lecture on sounding out words, I used Interactive Modeling. As I started, I asked students to be detectives and figure out what I was doing and why. After I demonstrated the skill and asked students what they noticed about how I had sounded out a word, I remember one of them saying, "You were like a detective, too! Each letter gave you a clue and you put them together to figure out the word."

From then on, the class saw sounding out words as an intriguing process—and when someone had trouble sounding out a word, a classmate would say, "Do you want help with the clues?" This lesson had much more impact than it would have if I had just told students what to do.

In this chapter, you'll explore how to plan Interactive Modeling lessons to teach general study skills and test-prep skills, as well as skills that are specific to certain academic and special area subjects. The Interactive Modeling structure helps students to carefully notice and specifically describe key aspects of these skills. It also enables them to see multiple successful examples of each skill in action. As a result, students are better able to internalize—and ultimately master—these critical learning skills.

Academic Skills and Interactive Modeling

Study Skills and Test-Prep Skills

Many study skills and test-prep skills, such as turning and talking with a partner about a topic, highlighting important text, taking notes, and following directions, are essential to students' becoming successful lifelong learners in all subject areas. We need to explicitly break down these processes and teach children how to use them so that every student becomes skilled at researching, analyzing, and evaluating information in class, during group work, and on their own. Interactive Modeling is a powerful and effective way to teach skills such as the following:

STUDY SKILLS AND TEST-PREP SKILLS

- Ask questions (as a listening skill and general reading skill)
- Head one's paper
- Fill out and check answer sheet
- Highlight important text
- Make/use a graphic organizer
- Take notes
- Make/play games or quiz oneself to study facts
- Partner chat
- Record observations and results
- Respond to questions in complete sentences
- Fill in answer selection
- Use test-answering strategies, such as process of elimination

The example that follows shows how Ms. Mishra, a fifth grade teacher, used Interactive Modeling to teach a way to answer textbook and test questions in complete sentences.

INTERACTIVE MODELING IN ACTION ✳ 5th GRADE

Responding to Questions in Complete Sentences

1 Say what you will model and why:

Ms. Mishra: "When you write your answers to homework assignments or tests, it's just like any other piece of writing. You need to think of your audience and communicate as clearly as possible so they can read what you've written and understand it immediately. I'm going to show you one way to make sure your answers are clear and easy to read. Watch and see what you notice."

2 Model the behavior:

On the electronic whiteboard, Ms. Mishra displays a question from a recently completed social studies lesson: "What were some of the reasons the Pilgrims came to America?" Beneath the question she writes, "Some of the reasons the Pilgrims came to America were religious freedom, economic opportunity, and adventure."

3 Ask students what they noticed:

Ms. Mishra: "What did you notice about how I made sure my answer was clear?"

Sophia: "You wrote a complete sentence."

David: "Your sentence made sense."

Ms. Mishra: [*following up*] "How did I use words from the question to help me with my answer?"

Camilla: "You used the part of the question that said 'some of the reasons the Pilgrims came to America' to start your answer."

Ms. Mishra: [*nodding*] "Doing that tells your audience exactly what you're writing about so that they don't have to reread the question. It also helps you to make sure that you write in complete sentences."

4 Invite one or more students to model:

Ms. Mishra chooses Antonio, whom she's fairly sure can apply the skill she's teaching, and posts the next question on the whiteboard.

Ms. Mishra: "Watch how Antonio uses that strategy to answer our next question."

5 Again, ask students what they noticed:

After Antonio writes his complete-sentence answer on the whiteboard, Ms. Mishra invites student observations.

Ms. Mishra: "What did you notice about the way Antonio answered the question?"

John: "He used words from the question in his answer."

Emmy: "He wrote a complete sentence."

Ms. Mishra: "Does his answer make sense?" [*students nod*] "Is it clear?" [*students call out, "Yes—really clear!"*]

6 Have all students practice:

Knowing that students struggle to consistently answer questions with complete sentences, Ms. Mishra wants to give them extra support, so she has them practice orally.

Ms. Mishra: "Now I'm going to pose two questions. With your partner, choose one question each and practice answering it the same way Antonio and I did."

7 Provide feedback:

Circulating and listening, Ms. Mishra quickly types up a few example responses she's heard and then calls the students' attention back to her.

Ms. Mishra: "I noticed that in all of these examples, you used a complete sentence that made sense. You started your sentences by using some of the words from the question. That helps ensure that your sentence answers the question."

Ms. Mishra adds another layer of practice by sending students off in pairs with some questions. Then she circulates again, coaching them along.

Ms. Mishra: [*reinforcing successes*] "I see that you used words from the question, and your answer is factually correct. You used a complete sentence, too." [*redirecting*] "I see that you started your answer with 'because.' Remember to use parts of the question to make sure your answer is complete. Let's try that together."

To adapt this lesson for younger children:

Use a similar lesson structure to teach more basic skills, such as figuring out the key words in a question and using them in writing complete sentences for answers.

Language Arts/Literacy Skills

Learning to read, spell, and write involves a host of skills, many of which can be taught through Interactive Modeling. Even writing just one sentence requires children to know a specific set of skills—where to start and stop writing on the paper, how to indicate when one word ends and another begins, what kind of punctuation to use, and so forth.

Here's a short list of the kinds of detailed language arts and literacy skills you can teach with Interactive Modeling:

LANGUAGE ARTS/LITERACY SKILLS

- Add descriptive details to your writing
- Address an envelope
- Complete a story map or other graphic organizer for understanding a story
- Decide what's important vs. what's interesting in a text
- Diagram sentences
- Find a word in a dictionary or thesaurus
- Form plurals
- Give a book talk
- Give peer feedback on writing
- Read with a partner
- Reread what you wrote to make sure it makes sense
- Sort words according to phonetic or spelling patterns
- Summarize
- Use a table of contents or index
- Use a word wall or other reference to help spell a word
- Use appropriate punctuation
- Use editing marks
- Where to start/stop on the paper

To read a sample Interactive Modeling script on using the dictionary, see page 186 in Appendix B; for a sample script on giving a partner feedback, see page 194 in Appendix B.

Math Skills

Although much of elementary school math is exploratory, students are also expected to learn certain math techniques. For example, a third or fourth grade teacher may have students explore division by devising their own problem-solving strategies, but she may also teach students a specific process for long division. And it's with these specific processes that Interactive Modeling can be useful, helping you teach a range of math skills and techniques, such as the following:

MATH SKILLS

- Add up the value of a set of coins
- Read and interpret a graph
- Create a graph (using graph paper or a computer program)
- Record strategies or show work
- Sort objects
- Align numbers with decimal points in vertical form
- Use a formula (such as for calculating circumference)
- Use algorithms for basic operations, adding/subtracting fractions, and so on
- Use clues in a word problem to figure out which strategy to apply
- Round numbers up or down
- Convert fractions to percents and vice versa

To read a sample Interactive Modeling lesson on sorting and recording the results, see page 181 in Appendix B.