

Critical Teaching Skills for Focusing Attention



Standard #8: Instructional Strategies

LEARNING OBJECTIVES

After reading this chapter, you should be able to:

- 4-1** Describe and give examples of strategies to use in openings, including strategies for responding to diversity.
- 4-2** Explain the role of questions in lessons, and summarize various types of questions to develop for lessons and activities.
- 4-3** Explain guidelines for effective questioning, including ways to engage all students and respond to skill and linguistic diversity.
- 4-4** Describe and give examples of strategies to use in closings, including strategies for responding to diversity.

CHAPTER OUTLINE

4-1 PLANNING OPENINGS

- 4-1a** Strategies for Openings
- 4-1b** Stating the Objective and Objective Purpose
- 4-1c** Responding to Diversity

4-2 DEVELOPING QUESTIONS TO ASK

- 4-2a** The Role of Questions
- 4-2b** Types of Questions

4-3 EFFECTIVE QUESTIONING

- 4-3a** Guidelines for Planning and Delivering Questions
- 4-3b** Engaging All Students through Questioning
- 4-3c** Responding to Skill Diversity
- 4-3d** Responding to English Language Learners

4-4 PLANNING CLOSINGS

- 4-4a** Strategies for Closings
- 4-4b** Responding to Diversity



Introduction

While Chapter 3 presented general frameworks for helping you think about instruction, Chapters 4 through 8 get down to the nitty-gritty of how to teach at the lesson and activity level. Twelve critical teaching skills, along with suggestions for how to respond to diversity, are described in these chapters. Critical teaching skills are evidence-based instructional strategies or techniques. They are best practices for teaching meant to be used universally.

One of the biggest challenges teachers encounter is keeping students involved, interested, and learning. Many effective teaching practices can be incorporated into your plans to help you meet this challenge. The critical teaching skills presented in this chapter are designed to help teachers focus the attention of their students on the important elements of any

lesson or activity. Effective questioning skills and strong openings and closings are all techniques that teachers can use to help keep students focused and engaged during instruction.

If your school is using a response to intervention (RTI) approach, you can think about the teaching skills in this chapter as part of quality instruction to prevent learning problems. All of them would be considered important components of primary, secondary, and tertiary prevention (RTI tiers 1, 2, and 3).

Read about Mrs. Roebuck and see what she is planning for a writing lesson for her class in Teachers in Action 4.1. Then, as you read through this chapter, think about the strategies for openings, questions, and closings that Mrs. Roebuck could select to use in her lesson. You may imagine that Mrs. Roebuck is teaching any grade level.

TEACHERS IN ACTION 4.1: A LOOK AT MRS. ROEBUCK'S PLANNING

Mrs. Roebuck is planning a lesson on how to write a report. Writing for different purposes is an overriding theme of all of Mrs. Roebuck's writing lessons and activities. Report writing fits well into this theme. Students have just completed projects on writing biographies and compare/contrast essays. After the current lesson, they will switch to a unit on fictional narrative (story writing). She selected report writing at this particular time because it fits nicely with the science unit she is teaching about endangered species. She plans to have students write reports about various endangered animals. Mrs. Roebuck's objective for the current lesson, which she anticipates will take several days, is that "students will write a report that includes a thesis statement, an introduction, a body with main points and detailed subpoints, and a conclusion". She plans to begin by teaching the various parts of the report, followed by having students practice the various parts. Finally, they will put the parts together in an original report on an endangered animal.

4-1 Planning Openings

A lesson or activity **opening** is the component in which the actual lesson or activity begins. It is designed to prepare students for learning by giving them a framework for what follows. Openings can

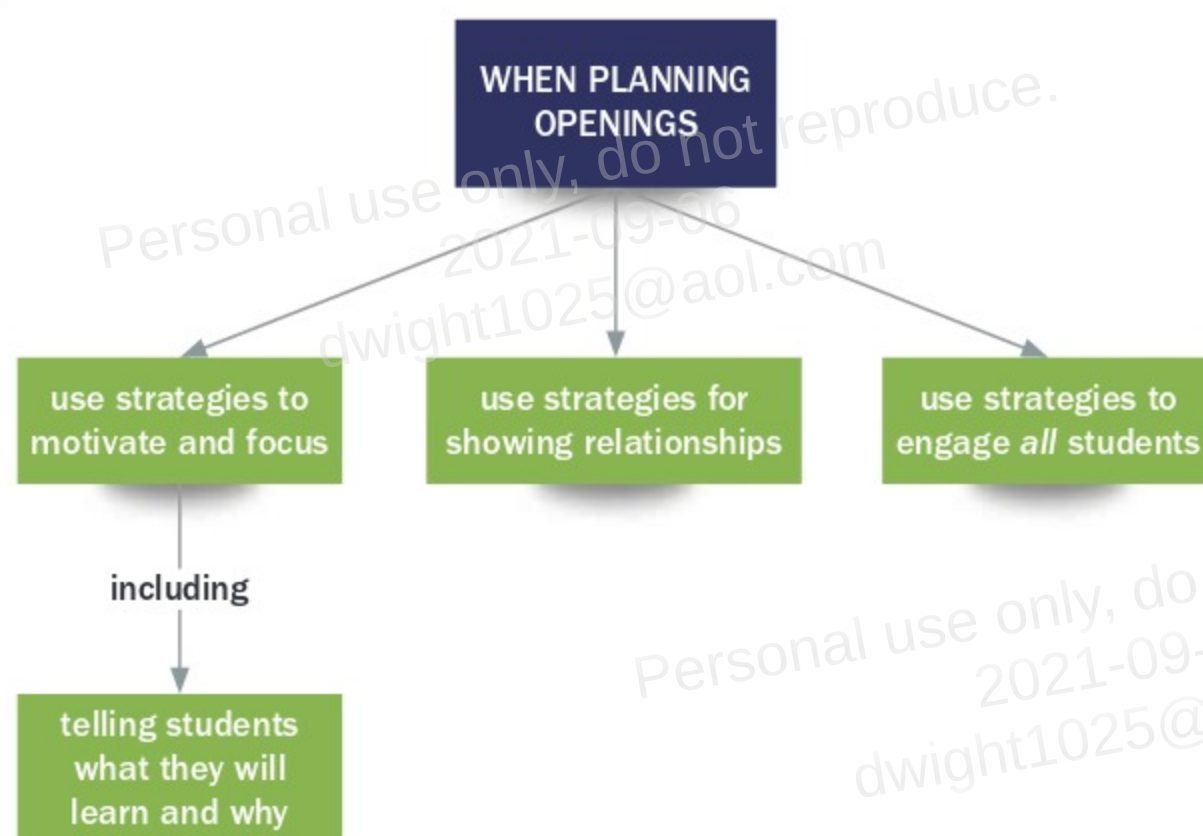
include specific strategies designed to motivate and focus students, and strategies that help students see the relationship between the new knowledge or skill and other learning. Generally, openings include both kinds of strategies (see Figure 4.1).

4-1a Strategies for Openings

You can select ideas for openings from the following two categories:

1. *Strategies to motivate or focus the students:*

- a. Tell and show the objective (write the lesson objective on the board); describe the evaluation (e.g., Mr. Donner tells students that they will write two complete sentences in which adverbs are included and used correctly at the end of the lesson).
- b. Tell students the purpose, rationale, importance, and application of the lesson or activity objective (e.g., Mrs. Herwerden explains that the current math lesson will help them double-check the change they receive after a purchase).
- c. Use an attention-getting "set" that relates directly to the lesson to capture student interest, such as jokes, stories, riddles, songs, poems, demonstrations, video clips, and so on (e.g., Ms. Sutton sings the rounding rap).
- d. Preview the sequence of activities in the lesson (e.g., Ms. O'Herron tells students they will read and take notes from their texts and

Figure 4.1 Strategies for Planning Openings

then work in cooperative groups to construct a study guide for their upcoming test).

- e. Provide a prompt related to the objective of the lesson and have students write a response in their journals (e.g., Mrs. Pacher has students respond to the prompt, “Fake news has a significant impact on decision-making”).
- f. Provide a key idea or generalization as an advance organizer (e.g., prior to providing information about specific foods or food groups, Mrs. Conerly explains that all foods fit into five basic food groups and that each group is a primary source of specific nutrients).
- g. Present a focus question that the lesson or activity is designed to answer (e.g., Mr. Borges begins by asking, “How do police officers help keep us safe?”).
- h. Preview lesson content through a graphic organizer (e.g., Ms. McClaskey shows students a concept map of the parts of a paragraph). See Photo 4.1 for another example of how to use a graphic organizer.
- i. Provide initial examples that are humorous or personalized (e.g., Ms. Colescott includes the names and interests of students in the classroom in initial story problem examples). (Also see Teaching Plan 6 in the Appendix for an example.)

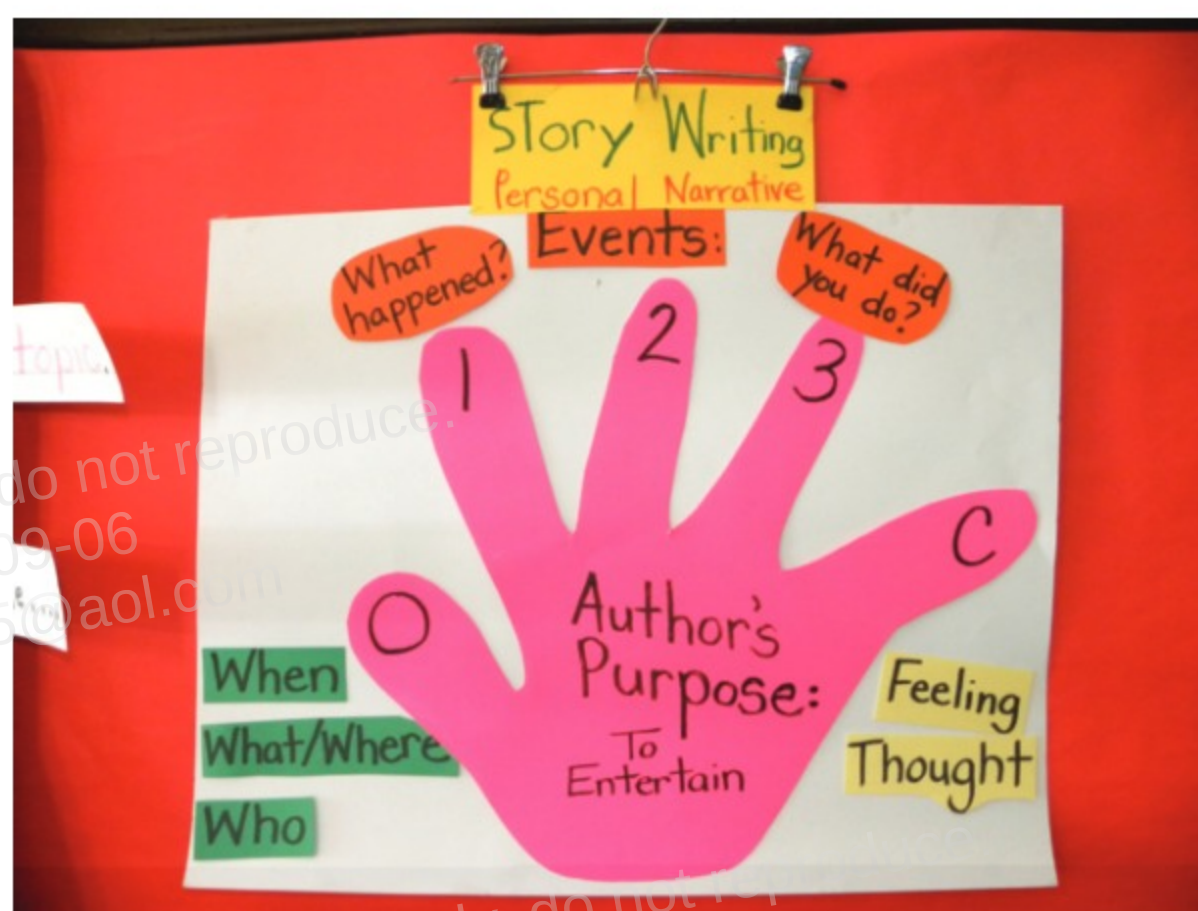


Photo 4.1 A graphic organizer can be used to give students a preview of a lesson on writing a personal narrative.

- j. Use an Anticipation Guide: Select 5–10 statements about the topic of the lesson and place in the center of a three-column organizer. Have students write responses to the statements in the “before” column prior to the lesson/activity with what they know about the topic [e.g., Ms. Stopperan’s students respond to statements about simple

machines prior to starting the first of a series of lessons on that topic (Lewis and Thompson 2010)].

2. Strategies to help students see relationships between the new knowledge or skill and other learning:

- a. Connect the learning to personal experience and prior knowledge (e.g., Mrs. Esget has students brainstorm examples of rhyming words as a way of beginning a lesson on poetry). (Also see Teaching Plan 2 for an example.)
- b. Build background knowledge (e.g., Mrs. Hansen shows a video clip of the Grand Canyon before reading a story set there).
- c. Use a KWL chart to find out what students already know (K) about the topic of the day, what (W) they want to learn about it, and at the end of the lesson/activity, what they learned (L). Fill in the K and W sections prior to the lesson/activity and the L section after it [e.g., before starting her activity on volcanoes, Mrs. Stay records what students already know (K) about volcanoes and what they want (W) to learn about them. Following her activity, she writes what they learned (L)].
- d. Activate background knowledge by connecting to earlier lessons or activities (e.g., Mrs. Fischer conducts a quick review of regrouping in the ones column prior to teaching regrouping in the tens column).
- e. Set up a “Quick Talk” where students take turns telling a partner their thoughts about an issue related to the upcoming lesson [e.g., Mrs. Nielson gives students time to discuss the impact of nuclear power plants on the environment (Lewis and Thompson 2010)].
- f. Create a context for learning (e.g., Ms. Tingley provides one set of materials for two students to open a lesson on sharing). (Also see Teaching Plan 1 for an example.)
- g. Preview upcoming lessons or activities (e.g., Mrs. Bilanko explains that the vocabulary words the students will learn in the current lesson will help them understand the story they will read tomorrow).

- h. Use a word splash: Provide students with a “splash” of the key words from the lesson and have them write what they already know about the words [e.g., Mrs. Slagle provides students with the terms *judicial branch*, *executive branch*, *legislative branch* prior to the activity on branches of government (Lewis and Thompson 2010)].
- i. Show students an outline of the whole unit (e.g., Ms. Andert shows the table of contents that will be used for the packet of information they will assemble during the respiratory system unit).
- j. State the relationship of the objective to a long-term goal (e.g., Mr. Springer explains how learning conversational skills will help students gain and maintain friendships).
- k. Connect to other subject areas (e.g., Ms. Fiskum explains that students will write a letter to a local city council member as part of the social studies lesson, using the same format learned in language arts).
- l. Present a graphic organizer (e.g., Mr. Vandalen shows a concept map for the unit on test-taking skills, highlighting multiple choice tests, the topic of the current lesson).

Teacher Checklist 4.1 summarizes key things to remember when planning openings.

TEACHER CHECKLIST 4.1: PLANNING OPENINGS

- ✓ Am I planning a strategy to grab my students' attention?
- ✓ Am I planning a way to clearly state the objective of the lesson/activity?
- ✓ Am I planning specific examples to explain the value of the lesson/activity?
- ✓ Am I planning to build or activate background knowledge?
- ✓ Am I planning to connect the learning to students' personal/cultural experiences?
- ✓ Am I planning a way to get my students involved right from the start?

Professional Resource Download



4-1b Stating the Objective and Objective Purpose

One of the most effective strategies to use in the opening of a lesson or activity is to tell students directly what they will learn and why. When students understand what to learn, how to demonstrate their learning, and why the learning is valuable, they become empowered and self-regulated learners. “Regardless of how important the content, how engaging the activity, how formative the assessment or how differentiated the instruction, unless all students see, recognize, and understand the learning target from the very beginning of the lesson, one factor will remain constant: The teacher will always be the only one providing the direction, focusing on getting students to meet the instructional objectives. The students will focus on doing what the teacher says, rather than on learning” (Moss, Brookhart, and Long 2011, p. 66).

When students are told directly what they will be expected to know or to do by the end of the lesson, the teacher is **stating the objective** or learning target. For example, “You are going to know the difference between reptiles and amphibians,” or “At the end of the lesson, I will ask you to circle the amphibians from a list of animals.” One way to illustrate the meaning of the objective is to show the students a target with the objective written on it. Explain that during the lesson, they will learn the information needed to hit the bull’s-eye (Parker J. 2009, personal communication). Make the statement of objective using words that are appropriate to the age and grade level of the students. It is often appropriate to show the students the objective in writing and have them write it in their notes.

When **stating the objective purpose**, teachers tell students about the value or rationale of the lesson. State the objective purpose in student terms and let them know why the knowledge or skill they are learning is important to them—that is, how it will help them in their daily lives or in school. Be sure to give specific, relevant examples when explaining the objective purpose. For example, saying, “It’ll help you when you are taking math in high school” isn’t as helpful to a group of third-graders as saying, “When you know how to count change, you can easily check and make sure that the change you get back from a store clerk is correct” or “Today’s lesson will give you the information you need to know about what to do if ever you receive an e-mail

that contains inappropriate content.” Remember Mrs. Roebuck’s lesson on how to write a report? See Teachers in Action 4.2 for some of her ideas for opening that lesson.

TEACHERS IN ACTION 4.2: MRS. ROEBUCK PLANS HER OPENING

STRATEGIES SELECTED

State Objective—Say, “Today, you are going to learn how to write a report.” (Objective is written on a poster that Mrs. Roebuck will display.)

Objective Purpose—Say, “One reason that it is important to know how to write reports is because they provide a way to educate others. You have all read reports in order to gather facts about various topics that we have studied. For instance, during our nutrition unit, you read reports about various nutrients and how they provide nourishment for our bodies. The reports that we will write will be used to inform others about endangered species, a topic that we have been studying in science. One way that we can help these animals is by teaching others about them and the kind of habitat they need in order to survive. Your reports will be compiled into a book that will be put into our school library for others to read. Once you know how to write a report, you can write about any topic as a way of informing others.”

Reasoning—Mrs. Roebuck has included strategies meant to clearly tell her students about what they will learn and why it is important to learn it. She uses specific examples of the objective purpose because she knows that her students are more likely to engage willingly if they know why they are learning something.

Mrs. Roebuck could have included other strategies to motivate and focus her students or to help them make connections with what they already know. What strategies would you recommend to help make her lesson opening effective?

4-1c Responding to Diversity

Openings may be simple or highly elaborate. When deciding what to include or exclude in the opening, consider variables such as (1) student background experience and prior knowledge of the content, (2) prerequisite skills or knowledge, (3) the abstractness or concreteness of the content, (4) whether this

is the first lesson or activity in a series, (5) probable student interest and motivation, and (6) the amount of time available for teaching.

The following suggestions will help you plan an opening intended to engage *all* students:

- Add drama, humor, novelty, or excitement to gain attention (e.g., use skits, puppets, music, video clips, jokes, riddles, or demonstrations).
- Personalize by using the students' names and experiences. For example, open a writing lesson with a sentence, or a math lesson with a word problem, about the students (e.g., "If Mrs. Donahue's champion third-graders win 16 games of four square . . .").
- Involve those students who are the most difficult to motivate or focus (e.g., use these students as helpers in the opening demonstration).
- Increase time spent on the review of earlier lessons or prerequisite skills and knowledge. Carefully plan ongoing daily, weekly, and monthly reviews of important content.
- Involve everyone in active responses (e.g., have all students write the definition of a term from yesterday's lesson rather than asking, "Who remembers what *ratio* means?").
- Invite students to write or say everything they already know about a topic in 3 minutes (e.g., "I'm going to give you 3 minutes to write everything you remember about cyber-bullying. Ready, go.>").
- Carefully consider each student's background knowledge. Don't make assumptions. Students from cultural backgrounds different from yours will bring different knowledge and experience to a topic.
- Computer software is available that can help develop graphic organizers to show students connections in learning or to preview lessons.

The opening of a lesson or activity serves a very important role. It can be used to help students make connections between what they already know and what is to come. You can also use openings to develop knowledge and experience or to pique interest in the information that you will present. Openings don't always need to be elaborate, but they should be designed with the needs of your students in mind. A well-planned opening sets the stage for the learning that follows. (See Teaching Plans 3 and 10 for examples.)

4-2 Developing Questions to Ask

The hundreds of questions the typical American teacher asks on a typical day (Gall 1984; Sadker, Sadker, and Zittleman 2011), and the various reasons for asking them, speak to their value. Carefully planned questions focus students' attention on the key ideas of the content that is being presented. Questions play an important role in all lessons and activities.

4-2a The Role of Questions

Sometimes, questions play a major role in lessons. In this case, they are the key instructional component of a lesson or activity. Orlich, Harder, Callahan, and Gibson suggest that "next to lecturing and small-group work, the single most common teaching method employed in American schools (and, for that matter, around the world) may well be the asking of questions" (2004, p. 240). Inquiry lessons, for example, depend heavily on asking questions to facilitate learning, as do discussion lessons.

Sometimes, questions play a supporting role. None of the models we present in this book, for example, use questions as the major teaching strategy. Instead, questions support instruction in two ways. First, teachers use questions to provide review, rehearsal, and enrichment of the information being presented (e.g., "What might have been another way to solve this problem?"). Second, teachers use questions to monitor students' understanding of the information being presented (e.g., "What is the second step of the editing process?"). The questions used in the sample lesson and activity plans included in this book are all questions that play a supporting role.

Teacher Checklist 4.2 includes a summary of key planning elements for teachers to consider when they plan questions to be included in lessons or activities. More detail about each key idea will be presented throughout this section.

TEACHER CHECKLIST 4.2: ASKING QUESTIONS

- ✓ Am I planning a variety of question types—for example, convergent, divergent, high level, low level?
- ✓ Am I planning questions to check for understanding of student content learning?

(continued from previous page)

continued from previous page

- ✓ Am I planning questions that are clear and specific?
- ✓ Am I planning prompts, probes, and redirects to facilitate correct student responses?
- ✓ Am I planning for adequate wait-time?
- ✓ Am I planning to tailor question wording and difficulty to meet the individual needs of my students?
- ✓ Am I planning different types of question response strategies (written, oral, physical)?
- ✓ Am I planning response strategies to address individual student needs?

Professional Resource Download



4-2b Types of Questions

We can think of questions according to their purposes and also according to the type of response they require. The following four types of questions each elicit a specific type of response from students. Each type of question requires a different type of information processing to answer it. Knowing when and why to use each of the question types will help you construct questions that fit your purpose.

Convergent and Divergent Questions

Teachers use **convergent questions** when looking for one correct answer (e.g., “What color is the circle?”; see Example 4.1). Convergent questions, for the most part, elicit short responses from students and focus on the lower levels of thinking, that is, basic knowing and understanding (Orlich et al. 2010).

EXAMPLE 4.1: CONVERGENT QUESTIONS

- What is the name of the NFL team headquartered in Seattle?
- Where is the Amazon River located?
- Who is the hero in this story?

Questions that prompt convergent responses often begin with the following types of stems: *who*,

what, *when*, *where*, *list as many as you can think of*, and *how many*. Convergent questions can be especially effective during recitations commonly used in teacher-led lessons. They promote active participation by providing students with an opportunity to rehearse and review information, and provide teachers a way to check for student understanding.

Teachers use **divergent questions** when they wish to evoke a wide range of student responses. See Example 4.2. This type of question also typically elicits longer student responses (Mastropieri and Scruggs 2007). Divergent questions can help promote higher-level thinking and problem-solving skills. They can be especially useful when you want students to consider issues in depth, such as during an extended practice discussion activity used to enrich informal presentations. Because this question type elicits numerous correct answers, its use can be appealing.

EXAMPLE 4.2: DIVERGENT QUESTIONS

- How would the world be different if the only color was gray?
- What would be another logical ending for this story?
- You have been given the power to stop racism. What would you do first? Why?
- Which political leader would likely be most successful in equalizing job opportunities for all U.S. citizens?

Question stems that will likely encourage divergent responses include the following: What could happen if . . . ? How many ways . . . ? How else might this have happened? Note that the divergent question has no single right answer, but it can have wrong answers. Borich states that “this is perhaps the most misunderstood aspect of a divergent question. Not just any answer will be correct, even in the case of divergent questions raised for the purpose of allowing students to express their feelings. If Johnny is asked what he liked about *Of Mice and Men* and says ‘Nothing,’ or ‘The happy ending,’ then either Johnny has not read the book or he needs help in better understanding the events that took place. A passive or accepting response on the teacher’s part

to answers like these is inappropriate, regardless of the intent to allow an open response” (2004, p. 240).

High- and Low-Level Questions— Bloom’s Taxonomy Revisited

Bloom’s taxonomy is discussed in the chapter on objectives (Chapter 2) because teachers can use it to help vary the degree of complexity of learning tasks as they plan their objectives. We discuss it again in this chapter because it can also be a useful guide when writing questions. The taxonomy provides a way for teachers to write questions that prompt students to think about content in various ways. Providing a variety of questions to use in any given lesson or activity is one way to address various learning needs of a diverse group of students. This section shows how Bloom’s taxonomy applies to planning questions. We present and define each level of the taxonomy with examples of question stems and questions (as adapted from Sadker et al. 2011; Kauchak and Eggen 2007). As in Chapter 2, we will use the labels from Bloom’s Revised Taxonomy.

A **low-level question** is one that is usually convergent in form and involves repetition or restatement of previously covered information. It is considered to be of low cognitive demand, that is, of low cognitive complexity (Stronge et al. 2011). This type of question is often used in basic skills instruction, or in early stages of learning (Mastropieri and Scruggs 2007). These questions are important building blocks leading to higher-level or divergent questions. It is unlikely that a student can analyze or evaluate information without an understanding of basic facts and information. The first two (or three) levels of Bloom’s taxonomy provide a good resource for developing lower-level questions. The following are examples of question stems and sample questions that use Bloom’s Revised Taxonomy to help design low-level questions and learning tasks:

Remembering. Questions at the remembering level prompt factual recall of information.

Question stem examples: who, what, when, where, name, list, define, identify

Sample questions and tasks:

- Define *punctuation*.
- What is a mutual fund?

- When was the *Brown v. the Board of Education of Topeka* case tried in court?

Understanding. Questions at the understanding level go beyond factual recall and are designed to help determine whether students understand the meaning of the content presented.

Question stems examples: explain in your own words, restate, describe, interpret

Sample questions and tasks:

- Give additional examples of punctuation.
- What are the key features of a traditional individual retirement account (IRA)?
- Explain the ruling of the *Brown* case—“separate is not equal.”

Applying. Application-level questions prompt students to solve problems or situations stated in the question by using the information they have learned.

Question stem examples: explain how, explain why, demonstrate, operate, illustrate

Sample questions and tasks:

- Explain how to punctuate this sentence.
- What type of an investor typically buys a Roth IRA?
- Explain why the lawyers who brought forth the *Brown* case were unsatisfied with the “separate but equal” ruling in *Plessy v. Ferguson*.

High-level questions ask students to make inferences, analyze, or evaluate, and they are often divergent in form. They require more in-depth thinking to answer than do low-level questions. In order to answer a high-level question, however, a student must know the basic facts. The upper three (or four) levels of Bloom’s taxonomy provide a good resource for developing higher-level questions.

Analyzing. Analysis questions prompt students to look carefully at the organizational structure of the information presented to formulate ideas.

Question stem examples: compare, contrast, how, why, diagram, distinguish, differentiate

Sample questions and tasks:

- Compare the use of colons and semicolons.
- What are three main differences between a Roth IRA and a traditional IRA?

- How would you describe the impact of the *Brown* case ruling in its attempt to equalize educational opportunities for all students in the United States?

Evaluating. Students are asked to make a judgment about ideas or concepts using a predetermined set of criteria.

Question stem examples: evaluate, appraise, judge, choose, predict, rate, estimate

Sample questions and tasks:

- Select the sentence that is best punctuated for clarity of meaning.
- Which of these stock and mutual fund options is best for a 401(k) plan for a 25-year-old?
- Which court case (*Plessy v. Ferguson* or *Brown v. the Board of Education*) had the most positive impact on equalizing resource allocation between African American and European American children in the public schools?

Creating. Questions at the creating level give students an opportunity to come up with something new using the information they have learned.

Question stem examples: design, construct, create, propose, formulate, catalog, plan

Sample questions and tasks:

- Create marks to punctuate sad, quiet, hesitant, anxious, bored, and quiet statements (as exclamation points are used to punctuate forceful statements), and argue for their use.
- Design a portfolio of mutual funds for an individual who is 10 years from retirement.
- Make a plan that a state could implement that would help decrease the achievement gap between nonwhite and white students.

High- and low-level questions have different purposes, and both play an important role in lessons and activities. A student's ability to answer a high-level question about a topic is dependent on having an understanding of the basic facts about that topic; the basic fact knowledge is assessed through the use of low-level questions. In this way, the question types at various levels of Bloom's taxonomy are interconnected, and questions at one level of the taxonomy may serve as a foundation for the next. This taxonomy provides a structured way to plan both high- and low-level questions.

You have undoubtedly noticed the overlap among question types. For example, a convergent question is often also a low-level question, whereas a divergent question response may require higher-level thinking skills. It is important to understand that one question type is not necessarily superior to another; that is, high-level questions are not "better" than low-level questions. Kauchak and Eggen point out the importance of having clear goals for questions: "Goals that are appropriate for the topic, the age of the students, and their backgrounds should determine the level of question" (2003, p. 176). This means that the important thing to remember is that questions should be planned to fit the purpose for which they are designed. Now think about Mrs. Roebuck and her lesson on report writing. She wants to challenge her students' thinking as she works through the lesson, but she also wants to know they understand the basic parts that make up a report. Look at Teachers in Action 4.3 for ideas of some of the questions she has planned. (See Teaching Plans 3 and 11 for additional examples.)

TEACHERS IN ACTION 4.3: MRS. ROEBUCK PLANS QUESTIONS TO ASK

Questions Planned

- What is included in an introductory paragraph? (knowledge/convergent)
- Write another example of a conclusion for this topic. (comprehension/divergent)
- Of these two examples, which body is the best? Why? (evaluation/divergent)
- How is the structure of a report similar to the structure of an essay? Different? (analysis/convergent)

Reasoning—Mrs. Roebuck not only wants to make sure that her students know the basic parts of a report but also wants her students to think beyond the basics. She designs some low-level factual recall questions to get at the basics as well as high-level questions that require students to apply the basic information.

What other questions could Mrs. Roebuck ask that would help ensure that her students are challenged in their thinking and also know the basic parts of a report?

4-3 Effective Questioning

Teachers plan how to ask questions as well as what to ask. It is always best to plan questions in advance, because it can be difficult to come up with questions that meet your goals when you are in front of a group of students. This is especially true for beginners or for experienced teachers who are planning to teach new or difficult content. It is also important to plan questioning strategies in advance.

4-3a Guidelines for Planning and Delivering Questions

Think about the following guidelines as you plan your questions (Borich 2007):

- Be clear and concise. For example, “How do the cones of volcanoes vary?” is a clear question, as opposed to “We’ve studied three kinds of volcanoes. They all have different kinds of cones and their cones vary in a number of ways; for example, some are larger than others. What would be the things we would study in the cone of a volcano that would tell us about the volcano type, and why?”
- Use vocabulary that is appropriate for the age and ability of the students. For example, ask third-graders, “What do you think Harry Potter meant when he said . . . ?” rather than, “What is your interpretation of the verbalizations of Harry Potter when he said . . . ?”
- Plan questions that are short enough for students to remember. Don’t ask, “What are some of the ways we can preserve energy, water, and timber resources; why do we need to preserve these resources; and what techniques can we use to communicate the need for resource preservation to others in the community?”
- Follow questions with time for students to think (see wait-time 1 and 2 discussed next). Provide adequate wait-time for more meaningful, thoughtful student responses.
- Follow questions with redirections, prompting, and probing as necessary. These cues can help students recall information and formulate more complete, complex answers.
- Follow questions with honest feedback. Correct responses can be acknowledged or praised. Incorrect responses need to be corrected so

students do not learn or practice incorrect information (see Chapter 7 for information on giving feedback).

- When you ask questions of your students, your goal should be to involve as many of them as possible. See ideas for specific response strategies in the chapter on active participation (see Chapter 6).
- Avoid ridiculous questions, like asking a group of schoolchildren from Seattle, “Have any of you ever seen a cloud?”

Wait-Time

No discussion about questions would be complete without also talking about the importance of wait-time. Sadker et al. suggest that “although teachers ask a large number of questions, they generally show little tolerance in waiting for student replies. Typically, only one second passes between the end of a question and the next verbal interaction!” (2011, p. 109–110). Gargiulo and Metcalf write that “research studies indicate that providing wait time increases the quality of student-teacher interactions as well as the level of discussion” (2017, p. 273). Wait-time 1 and wait-time 2 are both variations of the idea that students need time to formulate answers to questions.

Wait-time 1 refers to the time between when a question is asked and when a student answers (Rowe 1986; Orlich et al. 2010). When teachers provide students with 3 to 5 seconds after asking a question, more students usually respond, more responses are correct, and the responses are generally more complex (Rosenberg et al. 2006).

Wait-time 2 is the time between when a student apparently finishes a response and when the teacher redirects, prompts, or moves on. Adequate think time at this point in the questioning sequence generally results in more elaborate answers because students are given a chance to add to or modify their initial responses (Rosenberg et al. 2006).

Consider some special points when planning wait-time. First, low-level, convergent questions usually do not require much wait-time. The purpose of these questions is factual recall, so the student generally either knows or does not know the answer (an exception may be students with learning disabilities or English language learners (ELLs) needing

more processing time). Second, higher-level or divergent questions need more think time because the answers to these questions are generally more complicated. Also, some individuals seem to need additional thinking time to respond to higher-level questions (Mastropieri and Scruggs 2007). Finally, during fluency-building drills and practice activities when speed and accuracy are being developed, wait-time is not desirable (Rosenberg et al. 2006).

4-3b Engaging All Students through Questioning

Asking questions serves a variety of benefits. As mentioned earlier, questions can provide review, rehearsal, and enrichment of the information being presented, and they can also be used to monitor students' understanding of the content being taught. Yet another benefit is that all students can be kept involved in the lesson or activity when the teacher plans for the use of response strategies that require participation by everyone. For example, all students can write down an answer, all students can share an answer with a partner, or all students can point to the correct answer. In summary, giving all students opportunities to respond to the questions you ask benefits them in a number of ways—everyone gets to practice, everyone has their understanding checked, and everyone is engaged. See Chapter 6 for more ideas of how to keep students involved through the use of questioning.

Teachers sometimes choose to call on individual students rather than have all students respond at once. They may use a repetitive question-and-response pattern that works something like this: The teacher asks a question and calls on a student to answer, then the teacher asks another question and calls on another student to answer, and so on. This “calling on individuals” technique deserves special attention when thinking about using questions to monitor students' understanding of content or to keep students involved. Because only one student answers at a time, only one student is involved, and only one student's understanding is being monitored.

If you are trying to assess the understanding of the group, calling on an individual won't work. You'll need to use other strategies. When active participation response strategies (e.g., asking students to signal a response or hold up a written response) don't fit, you can sample the group's understanding by calling

on several selected students. Don't call on volunteers. Instead, call on students who represent a range of knowledge and skill in the topic you are teaching.

While it is common practice for teachers to call on individuals to answer questions, it is not appropriate to use this method extensively or exclusively, given all of the reasons discussed previously. When using the calling-on-individuals technique, however, there are some things that can be done to make its use more effective. These ideas are summarized in Example 4.3, then discussed in detail.

EXAMPLE 4.3: INVOLVING ALL STUDENTS WHEN CALLING ON INDIVIDUALS

When only one student will be called on to answer a question, an important goal is to keep the rest of the class engaged and accountable. These ideas will help you achieve this goal:

- Ask the question before calling on anyone.
- Call on nonvolunteers.
- Develop a system to keep track of who has been called on.

The following are specific strategies for the purpose of involving all students when calling on individuals:

1. Ask a question, pause, then call on a student by name, rather than saying, “Ben, what is the definition of . . . ?” This encourages all students to think of the definition, not just Ben.
2. Call on nonvolunteers rather than calling on students who raise their hands to answer. Tell the class in advance that you will be calling on nonvolunteers and allow them to pass if they choose. The purpose is to keep all students attentive and to send the message that you want to hear from everyone—even those in the back row. If a student knows he could be called on at any time, he is more likely to be attentive. In addition, selecting nonvolunteers at random ensures that you include everyone. Here are some ideas to make your selection random:
 - Draw cards or sticks (tongue depressors or ice-cream bar sticks) with student names on them.
 - Use a seating chart or class list that includes all students' names.

- Assign each student a number and draw numbers.
- Using a spinner board, call on the student whose name the spinner lands on.

Don't hesitate to intersperse calling on nonvolunteers with calling on volunteers. Sometimes, a student is very excited about a topic and bursting to respond. By all means, call on him (Delpit and White-Bradley 2003). Just remember that when you call on volunteers, it is important to avoid calling only on the same few students who raise their hands quickly. Increasing the wait time between when you ask the question and when you call on someone to answer may help produce more volunteers.

3. Develop a system that allows you to keep track of students who have been called on so you don't inadvertently leave students out. Here are some suggestions:

- If you use a class list or seating chart, put a check by students' names as they answer.
- Imagine the class divided into quadrants and call on a student from the first quadrant, then the second, and so on.
- Develop a system to replace name sticks in the can or name cards in the deck so you remember who you've called on (e.g., replace them upside down). Don't lay drawn name sticks or cards aside after you have called on a student. It does not take long for students to realize that once they have been called on, they are off the hook until everyone has been called on to answer.

Remember that the purpose of calling on students at random is to keep everyone involved and on their toes. Keeping track of who has answered is a way that you can help students be accountable. It also keeps *you* accountable for equitable participation of all students. If students are permitted to call out answers rather than required to raise hands, keep track of (or ask someone else to keep track of) who is responding. If some students are consistently left out, rethink the use of this method.

A final consideration when calling on individuals is that it is *never* appropriate to call on nonattending students with the intent of embarrassing them. If you call on a nonattending student as a management technique, prompt the student by repeating the question.

Various strategies will help keep the rest of the class engaged and attentive when you choose to call on individuals rather than use active participation strategies. Asking the question before calling on a student, calling on nonvolunteers, and keeping track of who has responded are all techniques that will make calling on individuals more effective.



TECH NOTE

Technology can help you use questioning effectively to focus students during openings and closings. Use a computer projector and screen, or interactive whiteboard to:

- Project preview or review questions.
- Build in wait-time by using animation (such as a blinking question mark).
- Select students to respond using a random name generator software/application.

4-3c Responding to Skill Diversity

There are a variety of ways that you can plan questions in response to the varying skill levels of your students.

- Don't make the mistake of only asking low-level and convergent questions of students who are low achievers. For example, in math, if you only ask some students specific computation questions (e.g., "What is the next step in solving this problem?"), they will have difficulty learning higher-level skills (e.g., "When could you use this type of computation skill?").
- Vary wait time. Some students will take longer than others to construct answers to questions. Adjust the amount of wait time as needed.
- Provide additional prompting ("Yes, we do import more oil today than we did 20 years ago. What has happened in terms of our lifestyles that may help explain that?") and probing ("What did you do this weekend that made it fun?" or "We've been studying three ways to make our writing more interesting. What is one of those ways?") as necessary.
- Ask questions that help students connect new learning with prior knowledge or personal experience. For example, "Think of a time when you noticed one of your classmates standing up for

another classmate when she was being teased. What did he say or do?”

- Ask a sequence of questions that build and lead students to correct or higher-level responses. For example, “What was the port of Seattle best known for during the late nineteenth century and early twentieth century?” (timber and fish exports). “Why was Seattle such an important port for these exports?” (proximity to major logging and fishing industries and a terminus for major transportation modes). “What other cities might have become (but didn’t) important Washington state ports for the same commodities?” (Port Townsend, Port Angeles, Bellingham).
- Present important questions in writing as well as asking them orally. For example, questions can be written on the board, on cards to be passed out, or on a worksheet. The important thing to remember is that it can be easier for some students to see the question as well as hear it.

4-3d Responding to English Language Learners

When planning questions for ELLs, it is important to consider several factors. First, where students are in relation to the stages of English language acquisition will help a teacher determine the kinds of questions that are appropriate to ask. Second, the stage of English learning influences the type of response that a student is able to produce (see Chapter 3 for more information about language acquisition stages). This means that diversity responsive teachers must match their questioning strategies to the language levels of their ELLs. Following are the language stages (adapted from Herrell and Jordan 2008) and examples of questions and expected responses that match each language stage:

Preproduction stage

- *Sample question/prompts:* Is this a man? Point to the girl. Show me “quickly.”
- *Typical question responses:* pointing, nodding, physically demonstrating

Early production stage

- *Sample questions:* What did Jack do? Is it red or blue?
- *Typical question responses:* providing one- or two-word responses, making choices

Speech emergence stage

- *Sample questions:* Why did Jerrell laugh? What will happen next?
- *Typical question responses:* providing short phrases or sentences (grammatical errors are not unusual)

Intermediate/advanced fluency stage

- *Sample questions:* What is your opinion on this issue? How are these two stories similar?
- *Typical question responses:* providing longer sentences, with fewer grammatical errors

The following are additional suggestions for designing questions for ELLs:

- Use consistent language in questions. Be sure the language in the question matches the vocabulary used in the lesson or activity.
- Use simple vocabulary and shorter sentences, and limit the use of idiomatic expressions, slang, and pronouns (Salend and Salinas 2003).
- Provide opportunities for students to work with peer language models when answering questions.
- Encourage students to answer questions by providing visual supports and clues such as pictures, gestures, and words (Salend 2011).

Questions can encourage students to think about and act on the material the teacher has presented (Borich 2007). They can be used to enrich content learning and help students review and rehearse information. Questions can also be crafted to help teachers monitor the learning of their students. Arends states that “beginning teachers should keep in mind one important truth, that is, that different questions require different types of thinking and that a good lesson should include both lower- and higher-level questions” (1997, p. 214). Questions can play varied and valuable roles in all lessons and activities.

4-4 Planning Closings

The **closing** is the ending to a lesson or activity, and its purpose is to give students another chance to consider or use the new learning. A well-planned closing allows students to process the material, summarize, and reflect. Learning can be reinforced during the

closing and make it more likely that students retain and make use of the new learning. Teachers need to plan closings for all lessons and activities and manage time during instruction so that closings are not rushed. The closing should wrap up any loose ends, tie everything together, and create a smooth transition from one lesson or activity to the next.

4-4a Strategies for Closings

Closings help tie things together for students. Various ideas for how to end lessons or activities, organized around the various purposes that closing serve, include:

1. *A review of the key points of the lesson or activity* (e.g., after reading a biographical sketch to her students, Mrs. Hoagland reviews major accomplishments in the life of Langston Hughes). Other ideas:
 - The Five Ws: Students explain the who, what, where, when, why and how of the lesson.
 - Students are given an index card and they write a postcard to their parents explaining the day's lesson.
 - See Teaching Plan 2 for an additional example.
2. *Opportunities for students to draw conclusions* (e.g., Mrs. Nowakowski helps students examine the relationship between lack of supervision and juvenile crime). Other ideas:
 - It Fits Where?: Students create a "timeline" of the concepts taught (i.e., they sequence the concepts) or explain a connection to something else they know (Sipe n.d.).
 - Pros and Cons: Students list pros and cons of the issue discussed (Sipe n.d.).
 - Students construct a Venn diagram of how the learning of the day is similar to the learning of the previous day.
3. *Opportunities for students to set goals or plan for using the new knowledge or skill* (e.g., Ms. Palm asks students to write a goal for using the study strategy they just learned). Other ideas:
 - Students name two companies/agencies where they can submit the resumes they created.
 - Dramatize It: Have students dramatize a real-life application of a skill (Finley 2015).
 - See Teaching Plan 1 for another example.
4. *A description of where or when students should use their new skills or knowledge* (e.g., Ms. Gonzales reminds students to try out their new social skill of "joining in" at recess). Other ideas:
 - I Care Why?: Students explain relevancy of the concept to their life or how they might use it (Sipe n.d.).
 - Students write the objective from the lesson and two examples of how they will use the information in the future.
 - So What?: Students answer the prompts: (1) What takeaways from the lesson will be important to know three years from now? and (2) Why? (Finley 2015).
5. *A preview of future learning* (e.g., following an activity designed to create interest in an upcoming unit on the solar system, Mr. Metz gives a brief explanation of unit lessons and activities that will occur in the next few days). Other ideas:
 - We're Going Where?: Students predict the topic of tomorrow's lesson. Be sure to refer to the predictions the next day as either an opener or in the closing (Sipe n.d.).
 - Quiz: Students are given an ungraded "quiz" as a pretest on a future objective.
 - Revisit the Unit Organizer: Have students refer back to their unit organizer and cross out the topics that were covered in the current lesson/activity.
6. *A time for students to show their work* (e.g., Mr. DePeralta has students share the three-dimensional shapes they constructed during the math lesson). Other ideas:
 - Gallery Walk: On chart paper, small groups of students write and draw what they learned. After the completed works are attached to the classroom walls, others students affix Stickies to the posters to expand on the ideas, add questions, or offer praise (Finley 2015).
 - Group Share: Students form table groups of four and take turns reading their work to each other.
 - School Walk: Students visit other classrooms to share what they have created (e.g., dioramas of favorite book, costumes of famous Americans).
7. *A reference to the lesson opening* (e.g., Mrs. Begay restates the lesson objective as she prepares

to begin the evaluation portion of her lesson). Other ideas:

- **Element of Surprise:** Students receive an envelope containing a card with a word or phrase selected by the teacher. Students discuss the concept and list the content-specific vocabulary necessary to discuss it. (Sipe n.d.).
 - **Snowstorm:** Students write down what they learned on a piece of scratch paper and wad it up. On signal, students throw their paper “snowballs” in the air. Finally, each student picks up a nearby “snowball” and reads it aloud (Finley 2015).
 - **Revisit Anticipation Guide:** Students are asked to go back to their anticipation guide (in which they predicted outcomes) from the beginning the lesson and revise their answers, including a rationale for making changes (Lewis and Thompson 2010).
- 8. An opportunity for students to self-evaluate** their progress toward the learning target (e.g., Mr. Rios has students chart their oral reading fluency scores) Other ideas:
- **3-2-1:** Students write three things they learned, two things they have questions about, and one thing they want the instructor to know (Sipe n.d.).
 - Students use a rubric to rate themselves on their achievement of the lesson objective.
 - Also see Teaching Plan 10 for an example.
- 9. An opportunity for the teacher to check for understanding of student progress toward the objective** (e.g., Ms. Griffith has students write three examples of proper nouns, following her lesson on common and proper nouns). Other ideas:
- **Exit Tickets:** Students respond to a teacher-made “exit ticket.” The ticket is linked to the lesson objective and consists of three to five questions that can be answered in a few minutes (Finley 2015).
 - **Explain a Procedure:** Students write to an absent student and explain how to do the lesson objective (Sipe n.d.).
 - **Two Dollar Summary:** Students write a two-dollar (or more) summary of the lesson. Each word is worth ten cents (Lewis and Thompson 2010).



TECH NOTE

Electronic polling programs can be very useful for conducting quick assessments of student progress toward an objective. Students can rate their experiences or their learning during the lesson/activity. This provides the teacher with instant feedback on what is being taught as well as how it is being taught. Poll Everywhere and Google Forms are two examples of such programs that can be used with tablets, smartphones, or computers.

Mrs. Roebuck plans to include a variety of strategies in her closing. Teachers in Action 4.4 shows one of her ideas.

TEACHERS IN ACTION 4.4: MRS. ROEBUCK PLANS THE CLOSING

Closing Strategy Selected: Review—Mrs. Roebuck plans to bring her students back together to review what they have learned in this lesson. She will begin by showing the poster that lists the steps for writing a report. She asks students to discuss in their small groups a definition and example of each part of the report. Mrs. Roebuck calls on a few students to share with the whole group.

Reasoning—She knows that the content she is teaching in this lesson is complex in nature. In order to write an effective report, students need to know how to do all of the various parts of the report. Mrs. Roebuck decides that one final review of the parts will help bring the lesson together. She also wants to provide every student with one last opportunity to process the information that she has presented, so she uses small group discussions to involve everyone.

Besides this review, what else could Mrs. Roebuck do in her closing to provide an effective wrap-up for her lesson?

4-4b Responding to Diversity

Consider the following when planning the closing:

- Do not assume that students will automatically apply or generalize the new skill or knowledge. Be very direct about where and when to use it. For example, “When you go to the cafeteria at noon, look around for someone who is sitting alone. Use the steps for ‘introducing myself’ and ask him/her if you can sit down and visit.”

- Actively involve students in summarizing at the end of the activity or lesson. For example, “Write down three ways that recycling saves energy.”
- Use the closing as one more practice opportunity. For example, “On your whiteboard, write 368 minus 147. Work the first step. Now the second step,” and so on.

A closing is an important component of lessons and activities. You can wrap up your lesson or activity in many different ways. (See Teaching Plan 7 for an example.) You will want to select strategies that are appropriate to the content being taught and the students you are teaching. Although a closing doesn’t need to be long and complex, every lesson and activity should have one.

Teacher Checklist 4.3 includes considerations for planning lesson or activity closings. It can be used as a guide for planning.

TEACHER CHECKLIST 4.3: PLANNING CLOSINGS

- ✓ Am I planning a way to involve all students in the closing?
- ✓ Am I planning for students to summarize or tie together key information?
- ✓ Am I planning how to directly state the importance of the content that was developed or practiced?
- ✓ Am I planning to give students an opportunity to practice the content one more time?
- ✓ Am I planning to give my students an opportunity to show/explain their work?
- ✓ Am I planning opportunities for students to reflect on the lesson objective and their learning?

Professional Resource Download



REFLECTING ON YOUR TEACHING 4.1

After teaching a lesson or activity in which questions played an important part, take time to reflect on the effectiveness of your questions and questioning strategies. What worked? What would you

do differently next time? You may wish to structure your reflection by using this Reflection Form. Add items that interest you particularly for the lesson you taught.

REFLECTION FORM: USING QUESTIONS IN A LESSON OR ACTIVITY

How did it go?	Reflection
Did students appear to understand the wording of my questions?	
Did I ask both convergent and divergent questions? Low level and high level?	
How did students respond to convergent questions? Low-level questions?	
How did students respond to divergent questions? High-level questions?	
Did I use adequate wait-time?	
Did my prompting and probing techniques work?	
Was I able to involve all students in responding rather than only calling on individuals?	
Did students react differently to questions asking for oral, written, or signaled responses? Did they seem to prefer certain response types?	
Am I satisfied with how I matched my questions and questioning strategies with individual student needs?	

Professional Resource Download



Summary

This chapter has provided numerous ideas for helping students focus their attention on the important parts of lessons and activities. Planning meaningful openings and closings can help set students up to learn, and then help them review their learning. Questioning strategies and an overview of question

types have been included to provide structure for planning questions that help students process key information. The ideas presented in this chapter can guide you in involving your students and keeping them involved in your instruction.

Key Terms & Definitions

Closing: The ending of a lesson or activity designed to help students tie together the new learning.

Convergent questions: Questions that have one correct answer.

Divergent questions: Questions that have more than one possible correct answer.

High-level questions: Ask for in-depth thinking, such as making inferences or analyzing.

Low-level question: Asks for repetition or restatement of previously covered information.

Opening: The beginning of a lesson or activity designed to help students focus attention and make connections.

Stating the objective purpose: Telling students why the learning objective is valuable.

Stating the objective: Telling students what they will know or what they will do by the end of the lesson.

Wait-time 1: The time between when a question is asked and when a response is requested.

Wait-time 2: The time between when a response is apparently complete and when the questioner responds or moves on.

Portfolio Pointers

○ Include recordings that feature your use of various types of questions and questioning strategies. (InTASC Standard 8: Instructional Strategies)

○ In planning documents, highlight the instructional strategies you use in lesson openings and closings for responding to student diversity. (InTASC Standard 8: Instructional Strategies)