

Examining Effective Teaching

6

Many things influence a teacher's actions in the classroom. As we have explored in previous chapters, these influences include educational theories and philosophies, a teacher's dispositions and abilities, lesson formats, and even educational leaders from centuries ago. We hope that it is becoming very apparent that effective teaching requires a careful balance and understanding of both science and artistry in order to meet the unique needs of every student in the classroom.

This chapter focuses on three important elements in an effective lesson plan:

- Proactive management
- Lesson beginnings
- Miniature closures

Definitions

Anticipatory set the way the teacher starts the lesson, which helps to capture students' attention. The initial actions and statements made by the teacher help the students to become interested in the subject and also relate to the prior experiences students have with the objectives of the lesson.

Classroom Routines/Procedures these are explicit tasks or activities that the teacher expects the students to perform to maintain classroom organization and efficiency. For example, teachers might establish routines for lining up, taking attendance, and handing out materials in class.

Closure the end of a lesson. Closures often include reviewing and clarifying the key points of a lesson, tying them together into a coherent whole, and emphasizing how students will apply new knowledge to real-world concepts.

Genre different categories of something, such as types of literature. Book genres include fiction, non-fiction, mysteries, fantasy, and science fiction.

Modalities different ways, or modes, of learning. Learning modalities can include visual, auditory, or body/kinesesthetic. Because each student learns through a different modality, teachers should incorporate activities that maximize multiple modalities so that all learning needs can be met.

Participation the act of taking part in the learning activity. Active involvement in the lesson increases the likelihood that the student will comprehend and retain the new information being taught. Active participation can occur in one of two ways:

- *Covert participation*—nonobservable actions, such as thinking about something.
- *Overt participation*—observable actions, such as talking in groups, raising hands, or completing a study guide.

Proactive Management taking the initiative to organize a classroom through the use of specific classroom procedures and routines.

Transitions the time between one classroom activity and another. In teaching, it is important to minimize transitions so that students have more time focusing on instructional tasks.

As you read, think about . . .

- ★ How did your high school teachers begin class?
- ★ What did your elementary teachers do to get your attention?
- ★ Did you enjoy learning new information? Why? Why not?

Focus Questions

- ★ How do classroom procedures and routines help a teacher to teach?
- ★ How does the use of anticipatory sets help students to learn new information?
- ★ How can teachers consistently engage students in learning?
- ★ How do closures help teachers to monitor student learning?

Beginning the Day with Proactive Management

What a teacher does to prepare his or her classroom prior to the beginning of school and the beginning of a lesson makes a big difference in how successful the lesson will be and, consequently, how much the child will learn. This is called *proactive management*.

To ensure an effective learning environment that enables all students to learn, students need to have a well-established set of *classroom procedures* or *routines*. Students must know what to expect from the teacher on a daily basis regarding classroom activities and *transitions* (Wong & Wong, 2004; Kronowitz, 1999; Enz, Kortman, & Honaker, 2002). A clear set of procedures benefits all students as they will know what to expect every day.

Let's observe two new teachers, Ms. Jordon and Ms. Terry, start the day with their third-grade students. Though it is only mid-September, these two teachers are definitely using instructional time in very different ways. See if you can determine what makes the teachers' interactions with students more or less effective.

First Example: Ms. Jordon

8:30 Ms. Jordon's children begin to line up outside the door in a quiet and organized line. Before the children enter the room, she uses a special signal to gain their attention. Once everyone is looking at her, she reminds the students to:

- Make their lunch decisions now, and
- Turn in their permission slips and check off their names.

As soon as the students enter the classroom they use the "I'm Here Chart" (Figure 6.1) to signal both their presence and their lunch choices, by placing a distinctively colored and labeled popsicle stick in their name pockets located on the attendance chart. The sticks represent different things:

- The white "milk" sticks signal that the child has brought lunch and intends to purchase milk only;
- The red "hot meal" sticks signal that the child will be purchasing the hot lunch; and
- The green "salad bar" sticks signal that the child will be purchasing the salad bar.

If a lunch stick is not placed in a name pocket, it signals that the child is absent. The last child in line is the week's classroom recorder. Using a form Ms. Jordon has developed, the recorder will count up the attendance, note who is absent, and tally how many hot meals, salad bars, and milks Ms. Jordon's room will be ordering from the cafeteria.

Ms. Jordon is also checking for permission slips for an upcoming field trip. After the students have signaled their attendance, they place their permission slip (if they have brought one) into the wire basket and check off their name on the clipboard placed beside the basket. Next, the students move to their seat or to the Library Center to return books to the classroom library using the Library Loan System. Several students check in their books. (Each book has a card with the title on it. Children remove the card and place it in their name pocket when they check out the book. When they check in the book, they return the book's card to the book.) Then students return the books to the appropriate **genre** basket (the books have stickers on them and the students place them in the basket with the corresponding sticker).

As soon as the students are in their seats they start to work on the *Morning Mind Challenge* (MMC). Ms. Jordon had written the MMC, a sponge activity (see **Instructional Inspiration 6.1**), on the board the night before. Today it is a math question, some days it is a riddle, some times a "Do you remember. . . ." question.

8:40 Nearly every day at this time, the students in Ms. Jordon's class are in their seats and already working. While all the checking-in was going on automatically, Ms. Jordon used the time to move among the students, welcome them, ask questions, follow up on home correspondence, and electronically send the attendance and lunch information to the school office.

8:45 Ms. Jordon begins to ask the children about the Morning Mind Challenge, and by 8:45 she begins to teach her math lesson (scheduled until 9:30). ■

From "Learning to Teach"

by Enz, Bergeron, Wolf

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Figure 6.1 ↓ I'm Here Attendance and Lunch Chart

Attendance and Lunch Chart				
Naomi	Terrel	Katina	Tim	Sasha
Sarah	James	Derek	Jewel	Ashley
Erick	Richard	Paul	Teresa	Kelly
Stacy	Steven	Cameron	Debi	Marie
Rainbow	Ravel	Rob	Brian	Michelle
Tonja	Mundar			



Classroom Glimpse

Contrasting Practice: Ms. Terry

8:30 As soon as the bell rings the students charge into the room, as Ms. Terry is finishing writing the Morning Mind Challenge (MMC) on the board. She casually greets her students as they come into the room. As the students enter, they talk to each other and move leisurely. Ms. Terry asks the children to settle down.

8:40 Ms. Terry asks the students to start working on the MMC. As the students begin to work, Ms. Terry stands before the class computer to begin taking roll on the electronic form. She calls on the children one-by-one (many of the children are still talking while she takes attendance). After she completes attendance, Ms. Terry asks the students to raise their hands if they want to buy hot lunch. She counts the hands and enters the number on the electronic form. Next she asks the children to raise their hands if they want salad bar but, before she is able to count their hands, she has to stop and deal with a discipline problem. As Ms. Terry turns back, two students raise their hands to tell her they have changed their mind and want salad bar instead. Ms. Terry makes the change on the computer and goes on asking students to raise their hands if they want milk.

8:50 Ms. Terry now asks the students who brought back classroom library books to put them on their desks. Ms. Terry collects the books in a basket. Later today, she will organize the books (alphabetically) and reshel them. (This will take approximately 15 minutes a day.)

8:55 Next, she asks if any of the students have permission slips to return. She asks the students to pass them forward. She will check the forms in during lunch or after school. (This will take approximately 5 minutes.)

9:00 Finally, Ms. Terry is ready to start the math lesson (scheduled until 9:30). ■

Taking a Closer Look

As we analyze the difference between these two classrooms, it must be noted that both teachers care deeply about their students' learning. However, one teacher is making much better use of classroom time – a critical factor in effective teaching and ultimately higher student achievement. How would you analyze these differences, to “take a closer look” into these very different classrooms? To begin the analysis, consider the following comparison grid. (See Figure 6.2, **Proactive Management: Teacher-Student Actions**.)

Figure 6.2 ↓ **Proactive Management: Teacher-Student Actions**

Ms. Jordan		Proactive Management: Teacher/Student Actions	Ms. Terry	
Yes	No		Yes	No
		Teacher greets students at the door. <ul style="list-style-type: none"> • INTASC 5: Motivation & Management • Personal Characteristic: Positive Disposition 		
		Students complete routine tasks, such as attendance and collecting/returning assignments/books. <ul style="list-style-type: none"> • INTASC 2: Student Development • Personal Characteristic: Creativity 		
		Teacher has completed all instructional preparation before the students enter the door. <ul style="list-style-type: none"> • INTASC 7: Planning • Personal Characteristic: Organization 		
		Clear, logical sequenced directions are given <i>only</i> when teacher has students' attention. <ul style="list-style-type: none"> • INTASC 6: Communication • Personal Characteristic: Oral Expression 		
		Teacher physically circulates and visually scans room to make sure students understand the task. <ul style="list-style-type: none"> • INTASC 3: Diverse Learners • Personal Characteristic: Flexibility 		
		Transition (the time from one activity to another) is smooth, taking less than two minutes. <ul style="list-style-type: none"> • INTASC 5: Motivation & Management • Personal Characteristic: Organization 		

Let's Do the Math Take a few minutes to calculate the difference in math instruction the children will receive in Ms. Terry and Ms. Jordan's classes.

How much more time will Ms. Jordan's class receive in:

- One week? One month? Nine months?

How much time will Ms. Terry spend working to reshelving library books?

- In one week? In one month? In nine months?

It took Ms. Jordan five hours prior to school starting to set up the Library Loan System. The system is self-managing. How much more time will Ms. Terry spend each year?

A comparison of these two teachers clearly reveals that Ms. Jordan has developed a number of techniques that help her manage her students and instructional time very efficiently. Ms. Jordan **knows** that instructional time is precious. The more instructional time she has, the more her students will learn. Therefore, she knows she needs to manage simple management tasks with student routines and use as little time as possible. Let's identify the simple management routines she used in only the first ten minutes of her class day.

- Attendance - Lunch Chart
- Check-In Form
- Library Book Check-In Chart
- Library Re-Shelving System
- Student Helpers

All classrooms have tasks and procedures that must be performed on a daily basis. Well-developed management routines serve as proactive tools that save both student and teacher time and ensure a smooth functioning classroom. During the first week of school, Ms. Jordan **skillfully** and explicitly taught her students these simple management routines. While it may initially appear as though it takes a great deal of time to develop the check-in charts, ultimately these devices will save hours of time and a great deal of frustration. Ms. Jordan's **disposition** to have a well-managed class determined it was time well spent.

Ms. Terry's lack of management routines cost the students time and makes extra work for her throughout the day. For instance, she will have to take time later in her day to re-shelf the library center books and check in the permission slips.

Experienced teachers and classroom-effectiveness researchers suggest that the establishment of these routines should begin on the first day and continue through at least the first two weeks of school. Classroom management experts stress that using this time to teach routines will actually give you more total teaching time during the year, plus you will benefit from having a well-managed, organized classroom (Enz, Honaker, Kortman, 2002; Wong & Wong, 2004; Kronowitz, 1999).

There are virtually dozens of routine tasks that could make classroom life easier and more organized – for both students and teachers. Figures 6.3. and 6.4. list a number of routines and procedures used in effective classrooms.

Figure 6.3 ↓ **Examining Proactive Routines for the Elementary Classroom**

Directions: Observe an elementary classroom, focusing on any routines the teacher uses. Using the checklist below, place an X by the routines you observe occurring.

What grade are you observing?

What time of day is it?

Choose one routine to describe. How does that routine work?

Beginning Class

- Enter/Exiting the Classroom
- Attention Signal
- Attendance Procedures
- Lunch Count
- Tardy Students

Classroom Management Procedures

- Rules of Respect
- Out-of-Room Policies
- Restroom Procedures
- Drinking Fountain
- Pencil Sharpening
- Fire/Earthquake/Bomb Threat Drills
- Noise Control
- Movement in Classroom

Instructional Activities

- Assignment Calendar
- Distributing Supplies
- Seeking Teacher's Help
- Storing/Filing Work
- Computer Access
- Finishing Work Early
- Study Buddy System

Other Routines**Grading and Checking Assignments**

- Self-Checked Work
- Editing Checklist
- Grading Criteria/Rubrics
- Recording Grades

Work Expectations and Requirements

- Heading Papers
- Name/Number/Class Information
- Quality of Work
- Incomplete/Incorrect Work
- Turning in Completed Work
- Homework Check-In

Dismissing Class

- Putting Away Supplies and Equipment
- Cleaning Up
- Going to Special Support Services, Speech, and Resource
- Lining up and moving in line

Adapted from Enz, B. J., Kortman, S., & Honaker, C. (2002). *Trade Secret: for Primary/Elementary Teachers*. (2nd ed.). Dubuque, IA: Kendall/Hunt.

Figure 6.4 ↓ **Examining Proactive Routines for the Secondary Classroom**

Directions: Observe a middle or secondary classroom, focusing on any routines the teacher uses. Using the checklist below, place an X by the routines you observe occurring.

What grade/subject are you observing?

Choose one routine to describe. How does that routine work?

Beginning Class

- Enter/Exiting the Classroom
- Attention Signal
- Attendance Procedures
- Tardy Students

Classroom Management Procedures

- Classroom Rules
- Out-of-Room Policies
- Movement in Class
- Drinking Fountain
- Noise Control
- Fire/Earthquake/Bomb Threat Drills

Instructional Activities

- Assignment Calendar
- Distributing Supplies
- Seeking Teacher's Help
- Storing/Filing Work
- Computer Access
- Finishing Work Early
- Study Buddy System

Other Routines**Grading and Checking Assignments**

- Self-Checked Work
- Editing Checklist
- Grading Criteria/Rubrics
- Recording Grades

Work Expectations and Requirements

- Heading Papers
- Name/Number/Class Information
- Quality of Work
- Incomplete/Incorrect Work
- Turning in Completed Work
- Homework Check-In

Dismissing Class

- Putting Away Supplies and Equipment
- Cleaning Up
- Returning Resource Materials

Adapted from Enz, B. J., Honaker, C., & Kortman, S. (2002). *Trade Secret: for Middle/Secondary Teachers*. (2nd ed.). Dubuque, IA: Kendall/Hunt.

Instructional Inspirations 6.1

Sponge Activities: Transitions between activities, classes, or periods are a major source of lost time. In the average classroom, one hour a day is lost in transitions. This adds up to five hours a week. Statements and directives such as the following will reduce time lost in transition. Sponge activities can be used to minimize wasted time. For example:

When the students first enter the room, before the bell has rung:

"On your paper, write three things that you remember from yesterday."

"Read the first page of the story and think of a question to ask a friend."

As the teacher or student helper passes out the materials:

"Students, be thinking about _____. Turn to your neighbor and share your answer."

"Think of a question about _____."

Sponge activities such as these are quick and effective ways to review lesson content with your students and maximize transitional time.

Complete Figure 6.3 (Elementary) or 6.4 (Secondary) the next time you visit a classroom to learn how teachers use routines to manage their class.

During your next college class session, meet in groups of four to six to compare responses.

- What routines are most common?
- What difficulties did you see arise when routines were not in place?
- What routines were most effective and why?
- If you were teaching the lesson you observed, which routines would you change? Why?
- What routines did you observe that weren't on the checklist?



Planning a Good Beginning

How a teacher begins his or her lesson, how he or she captures the students' interest and sustains student attention, is critical to student learning and achievement (Lowman, 1996). We are now turning our attention to the lesson itself by analyzing two new seventh-grade teachers, Mr. Boyd and Ms. Wiley. Both teachers are science teachers, and both classrooms have just started the study of genetics.

Classroom Glimpse

First Example: Ms. Wiley

As the students take their seats in Ms. Wiley's room, she has placed a vividly colored transparency of a DNA sequence on the overhead and tells the students they are going to be learning about genetics. She asks them to begin reading in their biology book, Chapter 2, which begins to describe the work of a monk named Gregor Mendel and how his study of differences in pea plants led to the science of genetics. Within a few minutes, Ms. Wiley begins to have some very restless students. After about twenty minutes, many of the students are daydreaming, passing notes, or text messaging. She has become frustrated and has started to write detention notices. Thirty minutes into class she asks the students to share with her what they learned about Gregor Mendel, but her question is met with blank looks. The students start flipping pages and offer a few half-hearted answers. Finally, she turns to the eye grid transparency and handout (see Mr. Boyd's classroom vignette) but the students are not responding to her. Several students are already complaining that genetics is boring!!!! ■

Classroom Glimpse

Contrasting Practice: Mr. Boyd

As soon as the students walk into Mr. Boyd's room he looks directly at their eye color and begins to take a tally. The students are curious as to what their teacher is doing. On the overhead he has placed a transparency, which asks the students to think about their parents' eye color. In a few moments he replaces the question transparency with the one he has just completed, based on the tally of his students' eye color.

Blue (bb)	Brown (BB or Bb)
8	18

Mr. Boyd asks the students a series of no-risk questions:

- Who has parents with brown eyes?
- Who has blue-eyed parents?
- Who has eyes that are a different color than their parents?

He tells the students, "Today we are going to learn why some of us have blue eyes and some of us have brown eyes." He says each parent contributes one gene for eye color. He tells the students that brown is a dominant color (more people have brown eyes) and is represented with a big B. He further explains that blue is a recessive color (fewer people have blue eyes) and is represented with a b. If you have blue eyes you will have two recessive genes (bb) for eye color. If you have brown eyes it could be represented like this BB or Bb.

Blue eyes are recessive bb	Brown eyes are dominate BB or Bb
b from mom	B from mom
b from dad	B from dad

He works out this chart on the overhead, and the students have an exact handout like this at their desks. They work out the genetic equation together. Mr. Boyd watches to make sure all the students are working with him.

Genetic Equation 1

Mom (Blue = bb) Dad (Brown = BB)	b	b
B	Bb	Bb
B	Bb	Bb
How many children would have blue eyes? 0 How many children would have brown eyes? 4		

Next, Mr. Boyd asks the students to figure out what happens if one parent has Bb like all of the offspring in the first genetic equation. Once again they work out the equation with him.

Genetic Equation 2

Mom (Blue = bb) Dad (Brown = Bb)	b	b
B	Bb	Bb
b	bb	bb
How many children would have brown eyes? 2 How many children would have blue eyes? 2		

Finally, Mr. Boyd asks the students to consider how two brown-eyed parents could have a blue-eyed child. He lets the students begin to work together to solve this genetic mystery. As they work together, he circulates the room to make sure all the students have been engaged in responding to the lecture and taking their notes. He is not surprised to discover that all his students have been working along with him. He had been able to observe their active **participation** while he was lecturing and discussing. As he moves among the students, many of them point to the equation they think is most like their family. He smiles and nods at their comments, and offers verbal reinforcement to their hypothesis. After a few minutes he returns to the overhead and asks for the students to share their findings.

Genetic Equation 3

Mom (Brown = Bb) Dad (Brown = Bb)	B	b
B	BB	Bb
b	Bb	bb
How many children would have blue eyes? 1 How many children would have brown eyes? 3		

He then asks the students to consider how many children from these three mathematic grids would have blue eyes and how many would have brown. The students add up the numbers and realize that only three out of twelve children would be blue eyes; nine would have brown. Mr. Boyd congratulates the students for their efforts and then asks them to consider how humans first figured out genetics. He asks them to predict how long ago this discovery was first made. He asks them to write that prediction on their papers and then assigns them to read Chapter 2 in class. ■

Taking a Closer Look

What instructional strategies is Mr. Boyd using that are helping his students stay involved and enthusiastic with the topic? Active engagement is a critical factor in effective teaching and ultimately higher student achievement (Marzano, Pickering & Pollack, 2001). To begin the analysis, consider the following comparison grid. See Figure 6.5. **Teaching Strategies.**

Comparisons of these two teachers clearly reveal that Mr. Boyd is using a number of effective instructional strategies that help his students connect to the new information he is teaching and stay actively engaged with him throughout the entire lesson:

- Beginning lessons effectively
- Presenting information clearly
- Encouraging student responses
- Maximizing participation

Figure 6.5 ↓ **Teaching Strategies**

Ms. Wiley		Teaching Strategies	Mr. Boyd	
Yes	No		Yes	No
		Teacher stimulates interest in lesson by actively involving students or by asking thought-provoking questions. <i>INTASC 6: Communication</i> <i>Personal Characteristic: Creativity</i>		
		Teacher connects new learning with something familiar. <i>INTASC 2: Student Development</i> <i>Personal Characteristic: Commitment</i>		
		Teacher provides appropriate concrete visual models <i>INTASC 4: Multiple Instructional Strategies</i> <i>Personal Characteristic: Written Expression</i>		
		Teacher provides opportunities for overt participation, such as simultaneous note taking and small group activities. <i>INTASC 4: Multiple Instructional Strategies</i> <i>Personal Characteristic: Flexibility</i>		
		Teacher presents information in a logical sequence, going from the simplest to more difficult concepts. <i>INTASC 1: Content Pedagogy</i> <i>Personal Characteristic: Organization</i>		
		Teacher models appropriate responses using overhead or board. <i>INTASC 6: Communication & Technology</i> <i>Personal Characteristic: Written Communication</i>		
		Teacher writes critical information on board, chart, or overhead. <i>INTASC 6: Communication & Technology</i> <i>Personal Characteristic: Written Communication</i>		
		Teacher checks student understanding and responses throughout lesson. <i>INTASC 8: Assessment</i> <i>Personal Characteristic: Commitment</i>		

Beginning Lessons Effectively What the teacher does in the first few minutes of the lesson is essential for motivating students' interest and sets the stage for further learning. Mr. Boyd piqued the students' interest by checking their eye color as they walked into the door. The question on the overhead, "*What is the color of your parents' eyes?*" was something the students knew and directly related to what they would be learning in class. These activities *activate students'* prior knowledge. To activate prior knowledge, the teacher often uses a technique called an *anticipatory set*. An anticipatory set:

- Helps students become ready to learn
- Gets the learner's attention
- Often involves overt (observable) participation
- Connects prior knowledge to new information
- Helps the student learn faster
- Reduces discipline problems

Examples of anticipatory sets:

“ *Before we read the story, *The Lottery*, I want to finish grades. I've decided to fail three students and have placed three fail slips among these thirty pass slips in this hat. Now, we'll pass the hat and everyone takes a slip.* ”

“ *Raise your hand if you will be looking for a summer job when school gets out. Most employers will require you to fill out an application. Today, we'll learn how to fill out an application to improve your chances of getting a summer job.* ”

Clearly, starting the lesson successfully requires more than “turn to page . . .” Ms. Wiley basically lost most of her students' interest, and thus lost their ability to learn about genetics, by not activating their prior knowledge (Bettencourt, Gillet, Gail, & Hull, 1983). Asking them to read unfamiliar information did not build an adequate fund of knowledge or interest. So most students in her class became bored and stopped participating in the lesson. Next, Ms. Wiley had discipline concerns and, when the active part of the lesson was offered (eye-grids), she had little enthusiasm for the topic.

Presenting Information Clearly When students are learning something for the first time, teachers need to thoughtfully consider how information is presented. To do this the teacher needs to consider how to present information in a logical sequence (Hunter, 1994). And while new knowledge is not always gained in step-by-step progression, knowledge does build upon prior information. When lessons build from known to new, from simple to complex, the teacher increases the likelihood that students will learn and retain the information (Enz, Hurwitz, & Carlile, 2005). Mr. Boyd's use of the eye grids built from the simplest combination to the more complex and supported the students' learning by keeping them engaged—he used an eye-grid handout that matched his overhead exactly. As he worked through the genetic combination, he was able to observe the students as they followed along with him. The answers to the questions he asked also confirmed their growing understanding of genetic combinations.

Mr. Boyd's use of visual models (eye grids) also provided every student an opportunity to use multiple *modalities*—students were *hearing, seeing, and writing* through the entire lesson.



Research has consistently revealed that when students are encouraged to ask questions and give responses throughout the lesson, they are more likely to be motivated to stay on task and learn throughout the entire lesson.

While Ms. Wiley's use of a vividly colored DNA double helix transparency was interesting, she did not refer to it nor did it relate directly to the learning objectives, which were:

1. Students will understand that for each physical trait, such as eye color, each parent contributes one gene to the offspring.
2. Often a trait has a dominant and recessive characteristic. The dominant characteristic governs the actual expression of the trait, for instance, the color of the eye.

Encouraging Students' Responses and/or Questions When Mr. Boyd asked no-fail questions (How many of your parents have brown eyes?) he made it easier for all students to participate. Research has consistently revealed that when students are encouraged to ask questions and give responses during a lesson, they are more likely to be motivated to stay on task and learn throughout the entire lesson. In addition, Mr. Boyd responds to the students' questions and answers positively using both verbal comments and nonverbal gestures.

Maximizing Opportunities for All to Participate Studies reveal that students who actively participate in a lesson tend to be more accountable, responsible, and successful than students who are merely bystanders (Marzano, Pickering & Pollack, 2001). The following information also explains why Mr. Boyd wanted the students to work together to figure out the last genetic equation. Students remember:

- 10% of what they read
- 20% of what they hear
- 30% of what they see
- 50% of what they see and hear
- 70% of what they say
- 90% of what they say while doing

Figure 6.6 provides a guide for observing teachers' instructional strategies in the class-

From "Learning to Teach" While you may not see *all* of these strategies used in *every* lesson, each strategy is important and will enhance students' learning.

Figure 6.6 ↓ **Examining Instructional Strategies**

Directions: Using the checklist below, place an X by the actions you observe.

What grade/subject are you observing?

Describe the classroom environment:

Begins Lesson Effectively

- Teacher activates/establishes students' prior knowledge of current lesson.
- Teacher helps students understand the purpose or importance of the lesson.
- Teacher stimulates interest in the lesson by actively involving students.

Presents Information Clearly

- Teacher presents information in a logical sequence.
- Teacher provides concrete and/or visual models when appropriate.
- Teacher uses vocabulary appropriate to students' level of understanding.

Gives Clear Directions and Explanations

- Teacher presents directions in a logical sequence.
- Teacher writes critical information on the board, chart, or overhead.
- Teacher checks students' understanding of directions before independent practice.

Encourages Student Responses and Questions in Teaching

- Teacher encourages students' responses and/or questions.
- Teacher responds in a positive and supportive manner to questions.
- Teacher uses responses to monitor student understanding of information presented.

Maximizes Opportunities for All to Participate

- Teacher asks questions of whole group first, rather than individuals.
- Teacher offers frequent opportunities for student-to-student interactions/inquiry.
- Teacher provides opportunities for overt participation, such as working on handout, manipulations, small group activities, discussions.

Adapted from Enz, B. J., S. Hurwitz, & Carlile, B. J. (2005). *Coaching the Student Teacher: A Developmental Approach*. Dubuque, IA.: Kendall/Hunt.

Classroom Strategies

Use the Examining Instructional Strategies guide during your next classroom visit. Watch closely to see how many of the strategies are used. During your next college course session, meet in pairs to share your responses.

- Were any of the strategies missing?
- Did it make a difference in the lesson's success?
- Which strategy was used most effectively? Describe this strategy.
- How would you improve the lesson by changing just one of the strategies?
- Which strategy do you think you would be most comfortable using the next time you make a presentation?
- How do these strategies relate directly with the INTASC standards for effective teaching?



Maximizing Student Learning Effective teachers have always known that what they do makes a difference in how their students learn. The goal, then, should be to apply effective instructional strategies to every lesson, every day. As the last chapter illustrated, students learn more when they are actively engaged in learning (Hunter, 1994). Student learning is increased when teaching is presented in a manner that assists students in mentally organizing the information they are learning. How teachers organize and present their lesson directly impacts how children learn (Enz, Hurwitz, & Carlile, 2005; Lowman, 1996).

Miniature Closures

Just as the beginning of a lesson is important in gaining students' attention, the *closure* of a lesson is also critical. Effective closures provide students with a review of the material they learned and provide the teacher with a quick check to see if students understood the material presented (Daniels & Bizar, 1998). In the following vignettes, read carefully to see how each teacher is using closures to wrap up a science lesson for kindergarten students.

Classroom Glimpse

First Example: Ms. Marks

Ms. Marks' kindergarten lesson objective is "Children will be able to label the parts of a seed." This is part of a larger instructional unit called "Living Things Grow." She has started the lesson by using a KWL chart (See Figure 6.7 **KWL Chart**). Ms. Marks gives each table of children a small cup that contains several different types of seeds. She asks the children to tell her if they know what kind of seeds are in the cup. They name the different seeds—lima bean, pinto bean, corn, kidney bean. She tells them that today they will be learning about the different parts of seeds. She asks the students to share what they already know about seeds (**anticipatory set**—to activate the children's prior knowledge). As the students share what they know, Ms. Marks writes the information on the chart.

Ms. Marks congratulates the children on their good questions. She tells them today they are going to learn about the different parts of a seed. She asks each table to find the lima bean seeds. There are enough for each child to have one lima bean. She passes out a small plastic magnifying glass and paper to each child. She asks the students to examine their seeds and report what they see. As the students work, Ms. Marks walks around the room and listens to their comments. This information helps her to hear their views and helps her to know what misconceptions they may have about seeds. She has also found that walking around the room is a good way to make sure all students stay on task.

Figure 6.7 ↓ KWL Chart

What we <u>K</u> now	What we <u>W</u> ant to learn	What we <u>L</u> earned
<i>Seeds are baby plants.</i>	<i>How does a seed become a plant?</i>	
<i>Different plants have different seeds.</i>	<i>How long does it take a seed grow into a plant?</i>	
<i>Seeds need water to grow.</i>	<i>Why do plants need water and dirt to grow?</i>	

After a few minutes, she asks the students to share what they have learned about the first examination of the seeds and she writes this down on the chart. Next, Ms. Marks gives the little scientists lima beans that have been soaking in water for a couple of hours. The children marvel at how large the beans have become. Within a few moments, the children realize that the outside of the seed has slid off. Almost immediately, the lima bean opens into two halves.

At this point, Ms. Marks uses a “get attention signal” (she claps her hands three times, and the students respond by clapping back and then become quiet and listen). She asks the children to share what they have just discovered. The students tell her that the lima bean had a covering. She tells them that this is called the seed coat. This direct input of new information is called **instructional input**. The children also share that the lima bean seed has two halves. She writes this information into the chart. This immediate confirmation of verbal and written feedback helps students know they are correct. Next, Ms. Marks hands them a paper to draw what they see as they examine their lima bean seed. The students draw the two halves and they also draw the “baby plant” inside the seed. Once again, she signals for their attention. She asks them to describe what they see and she writes this on their KWL chart.

Now Ms. Marks tells the students that the tiny plant needs help to grow. It needs food. She asks the children “*Where do you think the baby plant gets food?*” There are several guesses including incorrect answers. She listens and replies that it is a good guess. But she doesn’t confirm that the responses are correct. Within a few moments one child offers the correct answer, that the two sides of the seed are the food for the baby plant. She writes this information on the chart. Now she asks the students to review with her what they learned during their experiment today. The students re-read the *What We Learned* part of the KWL chart. (See Figure 6.8. **Completed KWL Chart**).

To summarize or close the lesson, Ms. Marks gives the children a drawing of the seed and asks the children to label it. (See Figure 6.9. **Diagram of a Lima Bean Seed**.) After the students complete the labeling, Ms. Marks puts a completed diagram on the overhead and asks the students to check their answers.

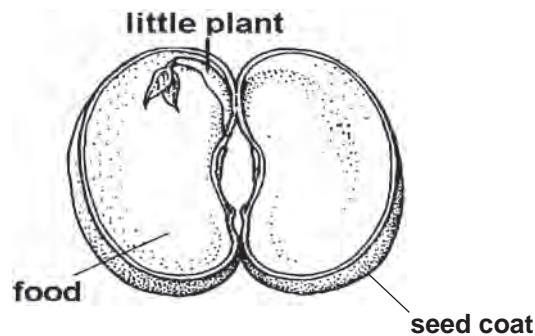
In addition to serving as a closure activity, the diagram is also a good assessment tool to document the children’s learning and participation. Later in the day, Ms. Marks reviews the papers and makes observational comments on two. One student had used a number of excellent descriptions in his group. Another child was having difficulty following directions and needed to be redirected. She makes these anecdotal notes to help remind her of students’ behavior patterns and possibly share with parents later in the year during parent-teacher conferences. ■

Figure 6.8 ↓ **Completed KWL Chart**

What we know	What we want to learn	What we learned
<i>Seeds are baby plants.</i>	<i>How does a seed become a plant?</i>	<i>Seeds are hard. We think this helps to protect them.</i>
<i>Different plants have different seeds.</i>	<i>How long does it take a seed grow into a plant?</i>	<i>The seeds have a shell-like covering called a <u>seed coat</u>.</i>
<i>Seeds need water to grow.</i>	<i>Why do plants need water and dirt to grow?</i>	<i>The lima bean seed has two halves.</i> <i>There is a <u>little plant</u> inside the seed. It has two tiny leaves and a root.</i> <i>The little plant needs food to grow; it gets it <u>food</u> from the rest of the seed.</i>

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Figure 6.9 ↓ **Diagram of a Lima Bean Seed**

Classroom Glimpse

Contrasting Practice: Ms. Cayman

Next door, Ms. Cayman is also introducing her five-year-olds to the parts of seed. Like Ms. Marks she has provided each table of six children with a sack of seeds. She asks the students to see if they recognize the different types of seeds in the sack. The students begin to list the beans: lima bean, pinto bean, corn, kidney bean.

Ms. Cayman asks the students to tell her how the seeds were alike and different. She begins to write down what the children share with her.

Next she passes out the lima beans seeds that have soaked in water. Then she provides them with magnifying glasses and paper. She asks the students to work in pairs and dissect their seed. The children quickly discover that after the seed coat falls away the seed actually has two parts. They also find the tiny little plant inside. She asks the children to draw what they see. The children discuss a great deal at the table—they enjoy using the magnifying glass.

To summarize the lesson Ms. Cayman provides the students the same seed diagram that Ms. Marks provided her students. However, Ms. Cayman, is quite surprised that her students had difficulty completing the form correctly. Most of the students could only label the little plant. ■

Taking a Closer Look

What instructional strategies is Ms. Marks using that are helping her students extend their knowledge of the parts of a seed? Critical to her success are:

- Active student engagement
- Explicit input
- Summarizing at strategic points in the lesson

Students need a chance to see and say what they are learning. To begin the analysis, consider Figure 6.10. **Building the Lesson.**

Putting It All Together

In this section, we have introduced three additional strategies to use when planning an effective lesson:

- Promoting student retention and understanding

Figure 6.10 ↓ Building the Lesson

1. Begins Lesson Effectively

- Activates/establishes students' prior knowledge of current lesson.
- Helps students to understand the purpose or importance of the lesson.
- Stimulates interest in lesson by actively involving students.

Marks:

Cayman:

2. Presents Information Clearly

- Presents information in a logical sequence.
- Provides concrete and/or visual models when appropriate.
- Uses vocabulary appropriate to students' level of understanding.

Marks:

Cayman:

3. Gives Clear Directions and Explanations

- Presents directions in a logical sequence.
- Writes critical information on board, chart or overhead.
- Checks students' understanding before they practice on their own.

Marks:

Cayman:

4. Encourages Student Responses and Questions

- Encourages students' responses and/or questions.
- Responds in a positive and supportive manner to questions.
- Uses responses to monitor student understanding.

Marks:

Cayman:

5. Maximizes Opportunities for All to Participate

- Asks questions of whole group first, rather than individuals.
- Offers frequent opportunities for student interactions/inquiry.
- Provides opportunities for overt participation, such as working on handout, manipulations, small group activities, discussions.

Marks:

Cayman:

6. Provides Students Feedback Through the Lesson

- Provides feedback to students as soon as possible.
- Provides feedback to students in a positive manner.
- Helps students evaluate their own performance.

Marks:

Cayman:

7. Instruction Promotes Student Retention

- Defines or models the expectations of the lesson or learning.
- Offer chances for students to demonstrate their understanding.
- Monitors student responses and adjusts instruction accordingly.

Marks:

Cayman:

8. Uses Closure-Summarization Techniques

- Offers closure at the end of distinct segments in the lesson.
- Provides opportunity for the students to summarize.
- Actively involves students in their own closure/summarization.

Marks:

Cayman:

9. Assesses Student Progress

- Teacher observes students working.
- Assessment focuses directly on lesson goals and objectives.
- Teacher maintains an accurate record of student performance.

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Questions can serve as a way to increase a student's attention and assess student understanding.

As we observed Ms. Marks' lesson, it becomes apparent that she was using these strategies in an overlapping manner. Her use of effective closure strategies helped her to assess the students' progress, and simultaneously allowed her to reinforce their learning.

Promoting Student Retention and Understanding Obviously, the goal of instruction is to have students retain the information presented. As we examined Ms. Cayman and Ms. Marks' lesson we noticed that both teachers had the same objective/outcome "students will be able to label the parts of a seed."

Both teachers were using the techniques to activate the children's prior knowledge. But almost immediately, Ms. Marks began to guide the students to spotlight on the objective of the lesson. She guided her students by using questions to focus the children's observations. She reinforced their learning of new information by writing down what the children were learning on the KWL chart; this action *promoted students' retention* of information.

Effective closures summarize students' understanding of the material (Cotton, 1995; Newman, 1996; Hunter, 1994). Ms. Marks knew there were three parts of the seed, so she knew she would have to briefly stop the students' observations to *assess their progress* of the information and reinforce their learning at least three times during the lesson. These brief checks for understanding or miniature closures helped her to observe the students' ability to label the parts of the seed. Ms. Mark's use of the seed diagram as an *assessment tool to document students' progress* was appropriate as it directly matched her objective. The seed diagram was also a way to gain immediate responses from all the students.

Figure 6.11 **Examining the Lesson** combines all of the instructional strategies we've described so far in this chapter. In order to better understand how teachers use all of these strategies together, use this guide as a reference to review the lessons you just read, during an actual classroom visit, or as you view a classroom video case study.

Figure 6.11 ↓ Examining the Lesson

Directions: Using the checklist below, place an X by the actions you observe. Then describe specifically the actions the teacher took to accomplish this goal.

Begins Lesson Effectively

- Teacher activates/establishes students' prior knowledge of current lesson.
- Teacher helps students to understand the purpose or importance of the lesson.
- Teacher stimulates interest in lesson by actively involving students or by asking questions.

Describe the strategies.

Presents Information Clearly

- Teacher presents information in a logical sequence.
- Teacher provides concrete and/or visual models when appropriate.
- Teacher uses vocabulary appropriate to students' level of understanding.

Describe the strategies.

Gives Clear Directions and Explanations

- Teacher presents directions in a logical sequence.
- Teacher writes critical information on board, chart, or overhead.
- Teacher checks students' understanding of directions before they practice independently.

Describe the strategies.

Encourages Student Responses and Questions in Teaching

- Teacher encourages students' responses and/or questions.
- Teacher responds in a positive and supportive manner to questions.
- Teacher uses responses to monitor student understanding of information presented.

Describe the strategies.

Provides Students With Feedback Through the Lesson

- Teacher provides feedback to students as soon as possible.
- Teacher provides feedback to students in a positive manner.
- Teacher helps students evaluate their own performance.

Describe the strategies.

Maximizes Opportunities for All to Participate

- Teacher asks questions of whole group first, rather than individuals.
- Teacher offers frequent opportunities for student-to-student interactions/inquiry.
- Teacher provides opportunities for overt participation, such as working on handout, manipulations, small group activities, discussions.

Describe the strategies.

Promotes Student Retention and Understanding

- Teacher defines or models the expectations of the lesson or learning.
- Teacher provides opportunities for students to demonstrate their understanding of lesson.
- Teacher monitors student responses, interprets, and adjusts instruction accordingly.

Describe the strategies.

Uses Effective Closure or Summarization Techniques

- Teacher gives students an opportunity for closure at the end of distinct segments in the lesson.
- Teacher provides opportunity for the students to summarize at the end of each lesson.
- Teacher actively involves students in their own closure/summarization.

Describe the strategies.

Assesses Student Progress

- Teacher observes students working.
- Assessment focuses directly on lesson goals and objectives.
- Teacher maintains an accurate record of student performance.

Describe the strategies.

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Box 6.1 ↓ **More About Madeline C. Hunter—A Teacher's Teacher**

Madeline Cheek Hunter (1916–1994) was an influential American educator who developed a model for teaching and learning that was widely adopted by schools during the last quarter of the twentieth century.

From her position at University of California at Los Angeles (UCLA) campus school, she synthesized many research findings and research-based practices from various sources and produced her TIP (theory into practice) model. Hunter's plan had seven steps and a closure activity. Most importantly, it also gave educators a common vocabulary of classroom planning that teachers still use today:

Madeline Hunter developed a **teacher "decision-making" model** for planning instruction. Her model is called ITIP (Instructional Theory into Practice) and is widely used in school districts around the country. There are three categories which are considered basic to ITIP lesson design.

Content: Within the context of grade level, content standards, student ability/needs, and rationale for teaching, the teacher decides what content to teach.

Learner Behaviors: Teachers must decide what students will do (a) to learn and (b) to demonstrate that they have learned.

Teacher Behaviors: Teachers must decide which "research-based" teaching principles and strategies will most effectively promote learning for their students. This was translated into a seven steps lesson plan.

1. Before the lesson is prepared, the teacher should have a clear idea of what the teaching **objectives** are. What, specifically, should the student be able to do, understand, and care about as a result of the teaching. The teacher needs to know what **standards** of performance are to be expected and when pupils will be held accountable for what is expected. **The pupils** should be informed about the standards of performance.
2. **Anticipatory set**—sometimes called a "hook" to grab the student's attention: actions and statements by the teacher to relate the experiences of the students to the objectives of the lesson. Anticipatory sets put students into a receptive frame of mind, focus student attention on the lesson, create an organizing framework for the ideas, and extend the understanding and the application of abstract ideas through the use of example or analogy.
3. **Teaching/presentation**—includes Input, Modeling, and Checking for Understanding.
 - a. **Input**—The teacher provides the information needed for students to gain the knowledge or skill through lecture, film, tape, video, pictures, etc.
 - b. **Modeling**—Once the material has been presented, the teacher uses it to show students examples of what is expected as an end product of their work. The critical aspects are explained through labeling, categorizing, comparing, etc. Students are taken to the application level (problem-solving, comparison, summarizing, etc.).
 - c. **Checking for Understanding**—Determination of whether students have "got it" before proceeding. It is essential that students practice *doing it right* so the teacher must know that students understand before proceeding to practice. If there is any doubt that the class has not understood, the concept/skill should be retaught before practice begins.
4. **Guided practice**—An opportunity for each student to demonstrate grasp of new learning by working through an activity or exercise under the teacher's direct supervision. The teacher moves around the room to determine the level of mastery and to provide individual remediation as needed.
5. **Closure**—Those actions or statements by a teacher that are designed to bring a lesson presentation to an appropriate conclusion. Used to help students bring things

together in their own minds, to make sense out of what has just been taught. “Any questions? No. OK, let’s move on” is not closure. Closure is used:

- to cue students to the fact that they have arrived at an important point in the lesson or the end of a lesson
- to help organize student learning, to help form a coherent picture, to consolidate, eliminate confusion and frustration
- to reinforce the major points to be learned
- to help establish the network of thought relationships that provide a number of possibilities for cues for retrieval

Closure is the act of reviewing and clarifying the key points of a lesson, tying them together into a coherent whole, and ensuring their utility in application by securing them in the student’s conceptual network.

6. **Independent practice**—Once pupils have mastered the content or skill, it is time to provide for reinforcement practice. It is provided on a repeating schedule so that the learning is not forgotten. It may be homework or group or individual work in class. **The failure to do this is responsible for most student failure to be able to apply something learned.**
7. **Summary**—You told them what you were going to tell them with the anticipatory set, you tell them with **presentation**, you demonstrate what you want them to do with **modeling**, you see if they understand what you’ve told them with **checking for understanding**, and you tell them what you’ve told them by tying it all together with **closure**. (Hunter, 1994)

Looking Forward

Who knew that it took so much time and effort to effectively start your day on the right foot? Ok, well not all that time is spent in one day, or at least it doesn’t have to be. Be prepared. Prepare tools to make your life easier. If you can predict and prepare ways to streamline tasks that are done daily, take the time to do it before your students arrive. It may not seem like much time, but you will soon see that there is no such thing as free time when it comes to a typical day in the life of a teacher. So, do what you can to save those precious minutes . . . they add up! We all know it is important to evaluate our students; we need to put into our minds that this is something we do daily in many different ways. We have to continually assess their progress, essentially assessing our teaching, on a daily basis. We want our students to be successful, and there is not one way to insure the success of all students. We have to be willing to adapt our teaching to meet the needs of our students and assess them on *what we teach them*, not what we expect them to know.

Building Effective Lessons

In groups of four to six, select one of the case studies accompanying this text to review together. As you read the case, record your observations individually on Figure 6.10, **Building the Lesson**, then compare your thoughts with those of your colleagues.

- As a group, pick one area the teacher excelled in. Why did you choose that strategy?
- Are there any discrepancies in your group’s responses? If so, defend your position to the group.
- As a group, make recommendations for this teacher to improve his/her lesson.
- How do these lesson components align with the professional characteristics of teachers described earlier in the chapter?

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