Question 8

What Are the Best Things You Can Do to Maximize the Chances of a Lesson Being Successful?

My lessons tend be pretty uneven. Sometimes, they seem to hit a home run. Other times, they're stinkers. And often I can't tell what made the difference!

There are obviously many, many things that teachers can do to maximize the chances of an individual lesson going well. This chapter shares just a few elements that research (and personal experience) tend to say are important. It is not designed as a universal checklist for teachers to ensure that every lesson they do includes every characteristic listed. On occasion, some successful lessons might not include any of these qualities. Other times, some duds might include most of them. So, the question is not:

Do all of my lessons have all of these characteristics all of the time?

Instead, it is designed more as a guide for teachers to periodically consider and ask themselves this question:

Do most of my lessons have several of these characteristics most of the time?

If the answer is yes to the second question, the studies cited suggest that you are more likely to consistently have successful lessons—ones where not only have *you taught* what you wanted, but students *have actually learned it*, too.

Of course, in addition to the points listed here, the ideas described in many of the other chapters in this book, particularly those concerning student motivation and building relationships, are critical, too. Without those, these ideas are just the "words" without the "music."

The eleven elements discussed below are not listed in any kind of chronological order. Even ideas from the introductions and reflection sections can be applied throughout any particular lesson. For example, creating novelty, identifying opportunities for students to transfer what they are learning to other areas, and activating background knowledge do not have to be—and should not be—limited to only the introduction period of a lesson. The same holds true for reflecting, reviewing, and summarizing, which can all occur at various points during the lesson and not just at the end.

Elements to Consider, Including in Lesson Plans

Strategic Introductions

A "strategic introduction" to a lesson includes several aspects.

Novelty

Our brains are wired to respond to something new—a survival legacy of our ancestors who had to be acutely aware of any change in their environment (Wolfe, 2001, p. 82). You are more likely to grab students' attention by introducing information, a topic, or a lesson in a different way.

This does not mean that a teacher has to get dressed-up in a costume. It could be something as simple as:

- Writing an unexpected word on the board and asking students to write its definition (as in the lesson where students were asked to write what they thought "self-control" meant; see page 57). Asking students to respond to a thought-provoking question that connects to their personal experience (as in the mindset lesson plan where they were asked to write about a failure or mistake; see page 71).
- Placing a group of intriguing uncaptioned photos on the wall, or a multicolored list of curious sounding words without their

definition (also known as a "Word Splash") that are related to an upcoming lesson, two or three days prior to a lesson.

- Showing a one- or two-minute video scene that stands out. For example, in a Pebble Creek Labs lesson (http://pebblecreeklabs.com/), prior to telling students they will be learning about Nelson Mandela, a short clip is shown of hundreds of thousands of people greeting and following him when he is released from prison. Students are then asked:

  > What kinds of events would make everybody in a country stop what they were doing?

Relevance

Judy Willis, neurologist turned teacher and author, suggests that students should be able to answer the question, "Why are we learning about this?" at any time (Willis, 2007). Of course, it is also important that the answer be personally relevant to them. In fact, some studies suggest that students believing, or not believing, that what they are learning will be useful in their lives is the most important indicator as to whether or not they will respond positively to the lesson (Jensen, 2000, p. 109).

Although how to make the lesson relevant is dependent on the content of the lesson, here are some ideas:

- Remind students how the lesson might connect to their goals (see the motivation chapter).
- Refer to "The Helping in the Future Lesson Plan" (if that had been taught; see page 27) and related posters on the wall created by students.
- Provide additional explicit suggestions on how students will be able to *transfer* what they will learn today to what they will learn in other classes and aspects of their lives. This is often challenging for students to identify on their own (Sousa, 2006, p. 138). Teachers can provide assignments to help students make those connections. Figure 8.1 (page 118) is an example made for an English class.
- Having students create a K-W-L chart (What I Know, What I Want To Know, and What I Have Learned), and explain that we tend to learn best when we can connect new information to what we already know.

Figure 8.1. Transfer Assignment Example

Name: _____

Date: _____

Homework Slip

English 9

Your "homework" is to use the reading strategy of *connecting* in one of your other classes today.

Directions:

Pick a piece of text you read in another class and connect it to something else. How does it relate to another piece of text? Television? The world? Your life? Something else?

Class:_____

What is this text about?

This connects to:

Explain how the two things connect:

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- Pointing out that our brain naturally seeks patterns, and we are taking advantage of that tendency when we organize new information into categories (such as when we use data sets like the one in the motivation chapter).
- Reminding students about the benefits of "grit," "growth mindset," and "problems as opportunities," which they learned in previous lesson plans—assuming they had been done—where a lesson's applicability might not be clearcut or some students are having difficulty making those connections. This could be a time to tell students of a study released in 2010 that indicated having the qualities of "patience, discipline, manners, perseverance" could mean learners could earn in their lifetime $320,000 more than their counterparts without those qualities (Leonhardt, 2010).
- Telling students, as a last resort, it will be on a test (either one in class or a standardized one) might be characterized as helping to make a lesson personally relevant. Having students think that is the only reason they should learn something new is probably not the message we want to send, but I know few teachers who have not resorted to saying that on occasion (including me!).

Written and Verbal Instructions

Writing down short instructions for students on a whiteboard or overhead/document camera, as well as explaining them verbally, is another aspect of "strategic introductions." These kinds of "multiple stimulations" can enhance memory (Willis, 2006, p. 4). Even when students still forget what to do, teachers can then just point to the instructions instead of repeating them again…and again…and again.

However, if there will be several steps that students will need to do, it might be better to keep them hidden and uncover them one at a time. Doing so can avoid confusion and students trying to jump ahead without completing the necessary initial steps.

Modeling

One of the biggest lessons teachers learn is the importance of modeling for students before they are expected to do a particular assignment. Teacher modeling seems to make a huge difference, and is recommended by many researchers, including Robert Marzano ("Holt McDougal Literature," 2010). No matter the subject, providing examples, including explicitly modeling the thinking process the teacher is using, will go a long way toward ensuring student success.

If you have a document camera in your room, however, nothing beats having students bring up examples of their work or just having the teacher grab the sheets and show them to the class during the lesson itself. By using that kind of modeling, you help other students see how to do it, take advantage of the fact that peer modeling can be more effective with young people (Berten, 2008), and provide unexpected recognition of good work, which is the kind of reward that does not reduce intrinsic motivation (Pink, 2009, p. 204).

Activate Prior Knowledge

We can help students make what they are learning more "meaningful" by helping them connect it to something they already know (Wolfe, 2001, p. 104). This can be done by the kinds of questions listed under "Novelty" (see page 116) or by the activities listed under "Relevance" (see page 117). Reminding students of how what they are going to learn, or are learning, on that day relates to what they have previously learned can also help them make that connection.

Translating

Whether it's during the introductory phase of a lesson, or at other times, asking students to "translate" important concepts into their own words can be a useful exercise. It could be as simple as asking them to tell their neighbor what the instructions are for the lesson that the teacher just provided. Or doing the same thing with a passage the class read, or certain important vocabulary words.

Movement

When we move, our blood recirculates and can result is as much as an additional 15% more blood in the brain (Sousa, 2006, p. 34). In addition, studies with adolescents indicate that nearly 75% of those studied were better learners when movement was incorporated into their classroom environment (Jensen, 2000, p. 110).

Creating opportunities for students to move—at least a bit—during lessons can help a lesson be successful. Students could move to be with a partner for a quick "think-pair-share" activity, or go to a small group to work on a project for a longer time. Students could have prearranged partners and locations that are the same for a week or two to facilitate movement.

Choices

William Glasser identified power and freedom as two of the basic needs that all humans have (Glasser, 1986, p. 25). Providing students with options to choose from is one way to help students experience both. Having some

authority over how one learns something new also improves the ability to remember it ("How Taking an Active Role," 2010) and increases students levels of interest (Sparks, 2010). Most dictionaries define power as "the ability to act" and having the freedom to choose (act) can enhance students' sense of control and help them develop self-confidence (Zadina, 2008, p. 51). These choices could include being:

- Asked on occasion for their partner preferences.
- Allowed to choose which reading strategies (visualization, making a connection, evaluating, asking a question, summarizing) they would demonstrate on a piece of text.
- Invited to choose where they would like to sit during small group sessions.
- Given two or more options of writing prompts to respond to.

These suggestions, however, do have one caveat. Sheena Iyengar (2010) has researched the idea of choice across cultures and found that some students in some cultures, particularly Asian ones, can perform *worse* when given the opportunity to make choices. Consequently, even though providing options to most students in U.S. classrooms can improve academic performance, teachers should be conscious of exceptions to the rule (as well as to any other educational or school "rule").

Minimize Lecture & Maximize Cooperative Learning

Research is cited in Question 1 on motivating students that finds lecturing is one of the less-effective teaching methods available. Multiple studies have found that cooperative learning is often a more valuable alternative. One of many reasons for cooperative learning's success is that it helps students achieve another of Glasser's basic human needs—to belong and connect (Glasser, 1988, p. 25).

Question 11 on cooperative learning shares more ideas on how this learning method can be incorporated in a lesson. As discussed in that chapter, studies show that smaller, rather than larger, groups work best, with three or four students being the maximum. I personally prefer sticking with pairs for most of a school year, and possibly moving it to three near the last quarter after six months of student experience with the process.

Wait Time

The average time between a teacher posing a question and a student giving the answer in a typical classroom is approximately one second. With this tiny amount of time, many students tend to give short and simple answers or no answers at all. Multiple studies show that the quality and quantity of

student responses increases when the wait time (also called think time) is increased to between three and seven seconds ("Wait Time," n.d.). In addition, those same studies show that after teachers begin to implement this methodology, their *questions,* too, become much better at promoting higher-order thinking (Stahl, n.d.).

One way to implement this kind of "think time" is to use the process of "Think-Pair-Share" by announcing:

> I'm going to ask a question, but I don't anyone to answer it right away. I want you think about it for a few seconds without saying anything.

Teacher poses the question and says:

> Now, I want you to share your answer with a person near you.

Next, the teacher can begin calling on people to share their responses with the entire class. It is also possible to incorporate another step into the process and make it a "Think-Write-Pair-Share."

Another option is to say:

> I'm going to ask a question, but I don't anyone to respond. I want you to take a few seconds to think about it, and then I'll call on people.

After the teacher, and students, get into the habit of handling questions and answers this way, this kind introduction might not be necessary—students will just know they will have a few seconds to prepare their response to teacher questions, and that you might call on any one (or two or three) of them. By not calling out the name of an individual student prior to asking the question, any student knows he/she might be asked to respond. By using this process, you can, in effect, institute a "no hands policy" (or a quasi "no hands" policy) where all students think they need to be prepared at all times. An additional way to encourage student response and reduce their fear of being "ambushed" is by incorporating a suggestion made by a former teacher blogger who wrote under the pen name California Teacher Guy. He suggests putting up two signs next to each other on the classroom wall. One says "I Don't Know" with a line drawn through it. The other says "I'm Not Sure, But I Think That…."

By combining these factors, teachers have the potential to create a classroom atmosphere of "relaxed alertness" that researchers Renate and Geoffrey Caine call the "optimum emotional climate for learning" (Caine, 2009, p. 21).

Visuals

Many studies have shown that memory and learning can be enhanced by using photos and other imagery (Wolfe, 2001, p. 154). Our eyes contain

70% of our body's sensory receptors (Wolfe, 2001, p. 152), and with written, verbal, and imagery input our brain is able to create multiple connections (Willis, 2006, p. 4).

Photos can be used to increase vocabulary comprehension by connecting them with new words. They can be used to promote higher-order thinking by having students generate questions about them and hypotheses about what they represent. Students can also be asked to apply standard reading strategies (making a connection, prediction, etc.) to a photo. Or, as mentioned in the "Strategic Introductions" section (see page 116), an attention-grabbing picture can be a useful lesson introduction.

Many more ideas on how to use photos in the classroom can be found at http://larryferlazzo.edublogs.org/2010/06/27/the-best-ways-to-use-photos-in-lessons/.

Short video clips (some researchers recommend showing video clips for no longer than ten minutes at a time; see Zhu, 2010) can be used in similar ways. Be sure that the assignment is clear prior to showing the video.

Explicit Pattern Seeking

The brain is designed to see the world through a lens of seeking and generating patterns; it is how we make sense of the world and create meaning. Students are always creating meanings this way, and it is sometimes similar to the old community organizing adage that "all communities are already organized, they just tend to be organized in the wrong way." A challenge to teachers is to guide this natural impulse into the areas of "…problem solving and critical thinking. Although we choose much of what students are to learn, the ideal process is to present the information in a way that allows brains to extract patterns, rather than attempt to impose them" (Caine & Caine, 1994, p. 89).

When we provide students pattern-seeking opportunities, they can increase brain cell activity and enhance memory and learning (Willis, 2006, p. 15).

The section on incorporating higher-orders of thinking in lessons (see page 131) offers detailed and practical suggestions on using this strategy. You can also find examples of the pattern-seeking methods of concept attainment and inductive learning (through using data sets) in lessons located in Question 1.

Using graphic organizers is another common and effective tool that is recommended by Robert Marzano and others to facilitate pattern-seeking (Marzano, 2001, p. 75). A K-W-L chart (What Do I Know? What Do I Want to Know? What Have I Learned?) may be the most familiar example of a graphic organizer. Many other outlines can be found at http://larryferlazzo.edublogs.org/2009/02/09/not-the-best-but-a-list-of-mindmapping-flowchart-tools-graphic-organizers/.

Fun

William Glasser (1988) identifies having fun as one of the five basic psychological needs that all humans need. Certainly, at its best, learning something new that is personally relevant to the learner and gained through an engaging lesson plan can be fun.

In addition, teachers can try to be more explicit in using other kinds of "fun" in lessons. A sense of humor that results in student laughter (or even smiles or groans) can have many positive effects on the learning process, including generating more oxygen for the brain and releasing endorphins in the blood that enhances attention (Sousa, 2009, p. 63).

Games can also be a source of fun and learning. Question 13 on incorporating games goes into more detail about how to use them. They can be good tools for review, and can function as a quick three-minute break or transition time. For example, putting a lesson-related "sentence scramble" (words from a sentence that are out of order) on the whiteboard, giving students the option to work in pairs or on their own to "unscramble" it, and offering a few points of extra credit or some other minor reward to the first seven people who get it right can take generate a big positive gain in the classroom climate at very little "cost."

Just "framing" a lesson as "fun" has been found to result in increased student achievement (DiSalvo, 2010, August 24) and enhances student insight and creativity (Carey, 2010). Introducing clozes (fill-in-the-blank passages) and sequencing activities as puzzles are examples of this kind of effective reframing.

Feedback

Question 5, the problems as opportunities chapter, highlights the importance of giving students feedback for their effort and not their intelligence. In addition, it has been found that if students are expecting to receive "rapid" feedback—a teacher's verbal or written response shortly after the work or test is completed—the quality of student work increases. Researchers think this may be because people are more likely to want to avoid feeling disappointed with a less-than-positive reaction. If the feedback is going to happen later, the concern about disappointment does not seem as immediate (DiSalvo, 2010, March 11).

Expecting immediate written feedback from most teachers most of the time is problematic, especially in secondary schools with large student populations. But as long as teachers are constantly circulating during class time when students are working, there is no reason why this kind of immediate verbal feedback can't take place. In addition, teachers can easily create a simple rubric to complete when individual students or small groups are

making presentations. This completed sheet can be given to the group during the same day.

Formative Assessment

Formative assessments are ongoing practices that help both the teacher and student evaluate and reflect on how they are both doing, and what changes either or both might need to make to become a more effective teacher and learner. These can include strategies like asking students to "show with their thumbs" if a concept is clear; carefully circulating and observing students; having them explain an idea to each other in pairs; and completing cloze (fill-in-the-blank) and reading fluency assessments described in Question 6. The ideas in the "Reflection, Review, & Summarization" section below and in Question 7 also fall into this category.

Formative assessments are often contrasted with *summative* assessments. Summative assessments are the midterm and final exams, benchmarks, and state tests that we give. They are designed to, at least theoretically, tell us what a student has learned and what the student hasn't learned and tend to be used to assess a grade or ranking.

Formative assessments are generally considered more useful to teachers. To quote Robert Marzano (2007, p. 13) formative assessments "might be one of the more powerful weapons in a teacher's arsenal."

More information on formative assessment can be found at http://larryferlazzo.edublogs.org/2010/08/22/the-best-resources-for-learning-about-formative-assessment/.

Reflection, Review, & Summarization

Question 9, regarding how to use "leftover" class time, describes the research, reasoning behind, and processes for using reflection, active review, and summarization. The most important thing that teachers should remember about implementing any one of the three is that the students need to take the primary responsibility of doing it. As Patricia Wolfe writes (2001, p. 187):

> **Remember that the person doing the work is the one growing the dendrites.**

Dendrites are the parts of the brain that grow as we learn new things (Willis, 2006, p. 1). Teachers might want to tape this sentence to their desks!