

# Sharing Our Instructional Secrets

Explaining teaching strategies to students allows them to derive more meaning and enjoyment from their classes and have greater control over their own learning.

*"Class, today we begin our study of India. I have several ideas about how I want to treat this topic. I plan to present some information to you just to provide background. However, in much of this unit, I will be using teaching strategies that will allow you to collect data and then to organize them in particular ways. You will decide many of your directions of study. One method I plan to use quite a bit is the Taba strategy, which has three stages: (1) concept formation, (2) interpretation of data, and (3) application of principles. When we use this strategy, I will go over it in more detail; however, let me say at this time that the reason for using it is to allow you to be more involved in processing the information on India. Also, it will help you to assume more responsibility for forming particular questions and deciding avenues of investigation. I hope it will make your studies more enjoyable.*

*"As we use a variety of methods in our study of India, we will see many ways in which we can investigate topics. In learning these strategies, we can become skilled in generating our own strategies."*

This kind of talk is uncommon in classrooms. Teachers rarely introduce new units by explaining the procedures they will use and their rationale. Although they discuss tried-and-true classroom activities and various teaching theories with their colleagues, they often ignore an important participant in the educational scene—the student.

Yet students at any age can benefit greatly from being aware of the processes they use in their learning. Such awareness has been identified as *metacognition*—consciously being aware of our own and others' cognitive operations. The key to benefiting from metacognition is the conscious regulation and direction of thought, which requires that we step back and consider just what we have been doing cognitively. This is something that can be taught.

## Sharing Our Methodological Secrets

Most teachers emphasize specific content in their classes. Theorists identify this as "knowledge that"—referring to the specific facts, concepts, rules, principles, generalizations, and theories

that teachers think are important for students to know. They seldom give equal time to what theorists call "knowledge how"—various ways of processing information and advancing knowledge.

Even in mathematics and composition, where processes are taught, teachers usually do not teach *how to learn*. For example, they do not take time to help students discover that professional mathematicians argue over how to approach and process certain mathematical information.

Stressing "knowledge how" involves teaching how mathematicians, biologists, historians, or fictional writers ask questions to furnish the necessary focus for action. As students view the world from these perspectives, they begin to comprehend how one goes about learning.

## When to Share Our Secrets

Teachers can reveal their instructional secrets by directly teaching specific instructional strategies at the beginning of lessons; taking a class period or more before the unit begins to teach a strategy that is appropriate for the particular lesson; or distributing

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handouts that list the steps of the strategy, the places where it is appropriate, and how to ask particular questions at each step.

Sometimes an instructional strategy is more effective when students are having problems with the lesson. Perhaps, in a current events lesson, two newspaper accounts report the same event differently, and students are unsure of how to process the discrepancy. Here teachers can assume the role of consultant and use the “teachable moment” to teach formally what to do. Or suppose students read a description of the demise of the Mayan culture of Central America and are asked to theorize why the culture declined at a particular time. This is a “discrepant event” requiring investigation, at which point the teacher can introduce an inquiry strategy that will enable students to reach conclusions.

### **Specific Secrets**

What secrets can teachers share? They can tell students the names of the strategies and the reasons they are used in certain situations. They can schedule time to teach the steps of specific strategies, explaining the rationale for each. They can discuss particular types of questions and how to put them into questioning strategies. They can also allow students time to formulate their own questions, drawing on information shared in class.

The Taba method is an inductive teaching strategy that many teachers know. In the example at the beginning of this article, the teacher formally explains the method to her class. She says that the first stage of the Taba method is concept formation, but first tells the class that they will play a major role in planning just what and how they will study about India. With the teacher's guidance, the students pose the key questions they have about India, note that they will primarily be using the Taba strategy, and list some expected outcomes of their investigations. This is part of the planning that students need to experience and a key aspect of executive control—the regulation of cognition.

The students generate a list of questions about the culture of India. Some list specific questions on how the religious beliefs of these people affect their daily lives; others focus on whether the Indian culture is modern compared with other cultures in the world. The teacher has the students look at their questions to determine types and purpose (assuming that she has given them some formal lessons on types of questions—perhaps a brief version of Bloom's *Taxonomy of Educational Objectives* with sample questions under each category).

Suppose one student asks how the health of Indian people compares with that of Americans, and another wants to know how many major languages are spoken in India. The teacher directs each student to classify his or her question and note the reasons for it. On reflection, the first student realizes that her question could be an analysis question at its highest level, and at its lowest level a comprehension question. She decides it is a comprehension question. The second student classifies his query as a knowledge question, but one of importance in determining India's cultural diversity. The students note these and other questions at the beginning of the lesson as beacons to guide their investigation.

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The teacher now goes to the task of concept formation, reviewing that this first stage has three steps: (1) identifying and listing relevant data, (2) grouping the data according to similarities, and (3) labeling the categories of data. She notes that this stage helps make sense of the vast amount of information that will be covered.

The students then form learning teams for processing the information. The teacher has provided various types of materials: books, encyclopedias, newspapers, and magazines. She also gives them a handout listing the steps of concept formation, with examples of the types of questions that can be asked at each step. Students realize that the original listing of data will be primarily in response to knowledge questions such as "What information can I gather about Indian culture or about India in general?"

When students have completed their lists of data, they will have to group them by asking questions to determine common attributes. Questions such as "What items belong together?" can be at the comprehension or analysis level. Students who have difficulty with this can either ask a fellow student or gain specific guidance from the teacher, who encourages them to monitor how they process the data. This monitoring function is part of executive control. If students are not getting information that they deem useful to their focus, they can revise the questions they are asking.

After the students have organized the information into clusters, they must ask analysis questions to determine the key attributes of the information organized, and synthesis questions to generate labels for the information. Again, the teacher must have introduced these types of questions to students and shared the secrets of questioning.

At the conclusion of this first stage, the class has clustered data under the categories of clothing, food, village life, city life, religion, and art. The students must now ask evaluation questions to determine if these categories are useful. This is the third major

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stage of executive control—checking outcomes. The teacher might also ask them to evaluate how they generated the categories. In a class discussion, students could share their methods of processing the information. The teacher might point out that being aware of the questions we ask helps us remember the information and the reason for organizing it, and discussing this phase of concept formation is a rehearsal for the next time concept formation is used. Structured rehearsals of strategies result in their being used later in similar settings (Ringel and Springer 1980).

After the students have judged that their categories are valid, the teacher can directly teach the steps of the second stage of the Taba strategy, the interpretation of data, which include (1) identifying points, (2) explaining items of identified information, and (3) making inferences. The students continue working in teams, taking the data generated in the first stage and

asking questions that will take them through the interpretation stage. The students are encouraged to ask questions such as "What are some important aspects of village life in India?" and "Why do you think such activities occur?" To shift the focus, the teacher could ask, "How might we describe the key features of Indian art?"

The students are then guided through the other two stages, finally being asked (or asking their own) synthesis questions to generate inferences or conclusions about Indian culture. The teacher again takes class time to discuss the procedures, encourage students to consider the reasons for their actions, and explain the rationale for what she has been doing. Thus, students realize that they are responsible for their learning and that the teacher is serving as a guide and process critic.

The third stage of the Taba strategy, the application of principles, is dealt with similarly. The teacher explains that the stage has three sets of operations: (1) predicting consequences or hypothesizing, (2) explaining predictions and hypotheses, and (3) verifying the predictions. The students are given time to use this information by either adding more depth to their understanding of Indian culture or using their knowledge of it as a basis for analyzing other cultures.

### **Learning to Learn**

A multitude of other strategies is available, and teachers should know the specifics of many of them. But they should also teach these strategies to their students. By sharing their instructional secrets with students, teachers will enable them to be more capable, efficient, and satisfied learners. □

### *Reference*

Ringel, B. A., and C. Springer. "On Knowing How Well One Is Remembering: The Persistence of Strategy Use During Transfer." *Journal of Experimental Child Psychology* 29 (1980).

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