

COMPONENT 3B: USING QUESTIONING AND DISCUSSION TECHNIQUES

Rationale and Explanation

A teacher's skill in questioning and in leading discussions makes a powerful contribution to student learning and is valuable for many instructional purposes: exploring new concepts, eliciting evidence of student understanding, and promoting deeper student engagement.

Before teachers have acquired skill in questioning and discussion, they tend to pose primarily rapid-fire, short-answer, low-level questions to their students, using the questions as a vehicle for students to demonstrate their knowledge. Such questioning is better labeled "recitation" than "discussion," because the questions are not true questions but rather form a

quiz in which teachers elicit from students their knowledge on a particular topic, or perhaps evidence that they have completed reading that was assigned for homework.

Poor questions may be those that are boring, comprehensible to only a few students, or narrow—the teacher has a single answer in mind even when other options are possible. Good questions, on the other hand, tend to be divergent rather than convergent, framed in such a way that they invite students to formulate hypotheses, make connections, or challenge previously held views. High-quality questions, in other words, promote thinking by students, encouraging them to make connections among previously believed, unrelated concepts or events and to arrive at new understandings of complex material. Even when a question has a limited number of correct responses—for example, a question for 1st graders as to the different coins they could use to make 23 cents—the question, being nonformulaic, is likely to promote thinking by students.

When teachers use questions skillfully, they engage their students in an exploration of content. Carefully framed questions enable students to reflect on their understanding and consider new possibilities. The questions rarely require a simple yes/no response and may have many possible correct answers. Experienced teachers allow students time to think before they must respond to a question and encourage all students to participate. Teachers often probe a student's answer, seeking clarification or elaboration through such questions as "Could you give an example of that?" or "Would you explain further what you mean?" Such interactions, in addition to encouraging deeper understanding, convey respect for students and their thinking.

Moreover, teachers make good use of questioning and discussion as an instructional skill by teaching their students how to

FIGURE A.13

DOMAIN 3: INSTRUCTION

Component 3b: Using Questioning and Discussion Techniques

Elements: Quality of questions • Discussion techniques • Student participation

ELEMENT	LEVEL OF PERFORMANCE			
	UNSATISFACTORY	BASIC	PROFICIENT	DISTINGUISHED
Quality of questions	Teacher's questions are virtually all of poor quality, with low cognitive challenge and single correct responses, and they are asked in rapid succession.	Teacher's questions are a combination of low and high quality, posed in rapid succession. Only some invite a thoughtful response.	Most of the teacher's questions are of high quality. Adequate time is provided for students to respond.	Teacher's questions are of uniformly high quality, with adequate time for students to respond. Students formulate many questions.
Discussion techniques	Interaction between teacher and students is predominantly recitation style, with the teacher mediating all questions and answers.	Teacher makes some attempt to engage students in genuine discussion rather than recitation, with uneven results.	Teacher creates a genuine discussion among students, stepping aside when appropriate.	Students assume considerable responsibility for the success of the discussion, initiating topics and making unsolicited contributions.
Student participation	A few students dominate the discussion.	Teacher attempts to engage all students in the discussion, but with only limited success.	Teacher successfully engages all students in the discussion.	Students themselves ensure that all voices are heard in the discussion.

frame good questions. They may provide an initial experience—for example, a brief but anomalous demonstration in science, or some primary source material in history—and invite students to ask questions about what they have seen. Teachers show students how to frame questions of high cognitive challenge and how to use the questions to extend learning. A well-run discussion uses questions posed by the students. The formulation of questions requires that students engage in analytical thinking and motivates them more than questions presented by the teacher.

Experienced teachers also cultivate their skills in leading discussions. As a result, class discussions are animated, engaging all students in important questions and using the discussion format as a technique to extend knowledge. In a well-run discussion, a teacher does not hold center stage but rather encourages students to comment on one another's answers and request further elaboration. In classes accustomed to discussion, students assume considerable responsibility for the depth and breadth of the conversation.

In a well-run discussion, all students are engaged. The dialogue is not dominated by a few "star" students, and the teacher is not simply waiting for someone to provide the answer he has been looking for. Rather, *all* students are drawn into the conversation; the perspectives of *all* students are sought, and *all* voices are heard. The students themselves ensure high levels of participation.

One mark of skill in leading discussions is a teacher's response when a student proposes an interesting but irrelevant tangent. Young children may innocently find something interesting and worthy of exploration. Older students, on the other hand, may do it deliberately to manipulate a situation: "Let's see how long we can get him talking about the '70s today!" Accomplished

teachers are able to pull the group back to the topic, while conveying respect for the students and their interests. Others are able to incorporate the students' ideas into the discussion, thereby enhancing those students' commitment to the topic at hand.

In a classroom where a teacher uses questions and discussions to enhance learning, the teacher may pose a single, well-crafted question and then wait for a thoughtful response. Follow-up questions like "Does anyone see another possibility?" or "Who would like to comment on Jerry's idea?" may provide a focus for an entire class period. The teacher gradually moves from the center to the side of the discussion and encourages students to maintain the momentum. At times the teacher may find it necessary to rephrase the question to refocus group attention on the topic. But in the hands of a skilled teacher, discussion becomes a vehicle for deep exploration of content.

Naturally, some disciplines present more opportunities than do others for teachers to use questioning and discussion techniques. Discussions in literature and history can be rich, with students hearing different perspectives on shared information. Although used less frequently in mathematics and science, discussion can nevertheless greatly enliven student engagement with important concepts. Students may be asked how they could test a theory in science or a procedure in mathematics—how would they proceed? The ensuing discussion serves to both deepen student understanding and to reveal, where appropriate, student misconceptions.

Demonstration

Teachers demonstrate their skill in questioning and discussion techniques almost exclusively in classroom observation. The initial questions used to frame a discussion should be planned in advance, however, and will be part of planning documents. (See Figure 4.13.)