

Big Questions



Little Kids

The role of questioning has long been recognized as an essential part of structuring educational experiences. Socrates believed that educational interactions between a teacher and student(s) should be built on the assumption that all knowledge is known or knowable if one can ask the right questions. In Socratic dialogue, a teacher poses questions designed to help the student realize what he or she already knows about the subject at hand. In the deliberative process, both the teacher and student explore, discover and inquire together.

Over the years, many educators have acknowledged the importance of teacher questioning in the educational process. In 1908, Charles DeGarmo stated:

“In the skillful use of the question more than anything else, lies the fine art of teaching; for in such use we have the guide to clear and vivid ideas, the quick spur to imagination, the stimulus to thought, the incentive to action (p. 179).”

There can be little doubt that questioning is one of the most popular of all instructional techniques used by teachers in classrooms. According to Kerry (1982), a teacher typically asks 1000 questions per week. These questions serve a variety of purposes, including:

- To encourage students to participate.
- To determine what students know and don't know.
- To engage students in discussion.
- To attract students' attention.
- To provide students with an opportunity to shine in the eyes of their peers.
- To assess students' level of understanding.
- To provide a review of content.
- To develop critical and creative thinking skills.

Each of these purposes may be important. But, they don't all satisfy DeGarmo's intent that questions be used “skillfully” to foster student thinking in the classroom. Gall (1984) found that about 60 percent of teacher's questions require factual recall, about 20 percent are procedural in nature, while only about 20 percent require students to actually think. In short, most teacher questions are “lower order” in that they require only recall or comprehension on the part of students.

While the prevalence of “lower order” questions in the typical classroom is well documented in educational research (see, for example, Goodlad (1984) and Wilen (1991)), it should be remembered that a primary goal of education is to teach students to think critically and creatively. To achieve this goal, teachers must learn how to make better use of questioning to exercise and sharpen their students' “higher order” cognitive skills.

What can teachers do to improve their questioning skills?

Educational literature offers a potpourri of approaches and strategies for teachers wishing to use questions as opportunities for students to practice thinking. For example, Taba (1967) encourages teachers to consider the levels and the sequencing of questions they ask of students. She suggests that teachers begin with questions that require recall

Questions may be the most powerful technology we have ever created. Questions and questioning allow us to make sense of a confusing world. They are the tools that lead to insight and understanding.

• **Jamie McKenzie**

of information, followed by questions that require processing that information (e.g. by classifying, comparing, or evaluating), and then ask questions that require students to apply what they are learning to develop generalizations or new kinds of knowledge.

Beyer (1987) suggests that teachers can do at least three things to ensure that questions serve to engage students in thinking. They can: (1) respond to student answers in ways that direct and encourage thinking; (2) employ questions that target specific types of thinking skills; and (3) teach students how to ask their own questions. Costa (1985) recommends that teachers paraphrase student responses (or have other students do so) in order to stimulate further student processing or reasoning. Rowe (1986) argues that students typically are not given enough time to think about an intelligent response to a teacher's question. She found that teachers usually wait less than one second for a student response before asking the question again or answering the question themselves. In addition, after a student responds, teachers often react by asking another question within one second. In an effort to enhance the quality of teacher questioning techniques, Rowe invented the concept of "wait time" in which she recommends that teachers wait three seconds or more after posing a question and, more importantly, after a student response.

According to Wassermann (1992), teachers may benefit most by simply listening to themselves as they use questions in the classroom. This self-monitoring activity might revolve around such questions as:

- What kinds of questions do I seem to be asking the most?
- Do students feel safe to respond to my questions?
- Do I usually end up answering my own questions?
- Do my questions require students to consider "big ideas" or issues of substance?
- Do my questions require students to generate their own ideas? To consider alternative points-of-view?

If teachers open themselves to this type of self-scrutiny, then the discussions in their classrooms have a chance of moving from the mundane and trivial to becoming more meaningful and powerful forums for learning and thinking about substantial content and ideas.

Jacobs (1997) recommends that teachers map their curriculum plans around essential questions that frame student learning in the classroom around meaningful and thoughtful inquiry into important ideas at the heart of a discipline. Similarly, Wiggins and McTighe (1998) suggest that since there is typically more content that can be reasonably addressed in a curriculum, teachers are obliged to make choices about what students are to learn. In establishing curriculum priorities, these authors recommend that teachers identify the enduring ideas worth knowing in a subject area and then frame these "big ideas" into essential questions that offer the most potential for involving students in "doing" the subject in ways that lead to deeper understandings.

The Role of Questioning in Art Classrooms

Several authors have brought attention to the important role that teacher questioning plays in promoting student thinking in art classrooms, While these authors focus on teaching art criticism and aesthetics, the basic ideas and strategies presented are consistent with those found in general educational literature on the topic.

According to Taunton (1983), Feldman's well-known art criticism model (i.e., description, analysis, interpretation, and judgment) offers an appropriate structure for engaging young children in talk about art. She describes the kinds of questions and the types of responses that might prove most beneficial in structuring interactions between young children, adults and works of art. Questions that can encourage critical thinking about

What one learns and how one learns is determined in part by the kinds of questions asked.

• Barry Beyer

Artful questioning creates the difference between students who learn to make intelligent meanings from data and those who learn merely to remember the facts.

• Selma Wassermann

The best questions are those that lead to new questions.

• Author Unknown

art among children include: cognitive memory questions (e.g., What are some words that you can use to describe this painting?); convergent questions (e.g., What is the difference between these two paintings?); divergent questions (e.g., What do you think was the reason the artist painting this picture?); and evaluative questions (e.g., Did the artist who painted this do a good or bad job? What makes you think so?) Recognizing that a teacher's response to a child's initial answer can profoundly affect the continuing discussion, Taunton recommends that teachers employ four "probing" techniques in order to get more in-depth answers. These include: (1) seeking clarification; (2) looking for justification; (3) refocusing the student's attention; and (4) providing prompts for children in need of assistance.

Art educators must help people to understand that it is with the formulation of questions and pursuit of answers that we should initiate and carry out our essential investigations into the visual arts.

• Paul E. Bolin

The important thing is not to stop questioning.

• Albert Einstein

Hamblen (1984) argues that the questions which art teachers frequently ask students do not actually encourage critical thinking about art. She maintains that effective classroom discussions about art require an open atmosphere conducive to inquiry. Among the many suggestions offered by Hamblen for improving teacher-student dialogue are examples of ineffective and effective types of questions as well as appropriate and inappropriate teacher responses to student answers. For instance, an ineffective question like "Is this a painting by Picasso?" can be made more effective by changing it to "Why do you think this painting might be by Picasso?" Also, instead of focusing on the most capable or verbal students, Hamblen recommends that teachers elicit responses for several students in order to demonstrate the multiple interpretations are possible.

More recently, Bolin (1996) discussed how exploring essential questions can connect learning in the classroom to the world of art. He considers a number of significant questions that have been raised by artists, art educators and writers about art, including:

- Why have there been no great women artists?
- What does it mean to be a "successful" artist working today?
- What is art for? Is art necessary?

Such questions provide opportunities for continued thinking and searching for answers. They are rarely rooted in certainty and wrestling with them frequently brings to the surface other puzzling questions. Yet, as Bolin affirms, such engagements are "worthy of our most earnest struggle" (p. 10).

Summary

One of the most important instructional techniques that teachers make daily use of in classrooms is that of questioning. It is generally recognized that effective questioning by a teacher can profoundly affect the quality of student learning and thinking. For teachers interested in improving their questioning skills, a review of the literature offers a number of guidelines to follow:

- Generate and sequence your questions before engaging students in discussions (e.g., begin with questions that call for factual information followed by questions that require students to generate ideas.)
- Incorporate questions that target specific types of thinking (e.g., analyzing, comparing, classifying, and judging).
- Monitor yourself as you ask questions of students and respond to their answers.
- Respond to students' answers in ways that acknowledge and/or probe their thinking.
- Identify the "big ideas" to be examined in a lesson. Formulate questions that will enable students to consider and reflect upon that ideas of substance.
- Create and maintain an open atmosphere in the classroom that encourages respect for all contributions and the exploration of alternative points-of-view.

References

- Beyer, B. (1987). Practical strategies for the teaching of thinking. Boston, MA: Allyn and Bacon, Inc.
- Bolin, P. E. (1996). We are what we ask? Art Education, 49 (5), 6-10.
- Costa, A. (1985). Teacher behaviors that enable student thinking. [In A. Costa (ed.) Developing minds. Alexandria, VA: Association for Supervision and Curriculum Development] 125-128; 131-135.
- DeGarmo, C. (1908). Interest and education: The doctrine of interest and its concrete applications. New York: Macmillian Co.
- Gall, M. (1984). Synthesis of research on teachers' questioning. Educational Leadership, November, 43.
- Goodlad, J. (1984). A Place Called School, New York: McGraw-Hill
- Hamblen, K. (1984). Don't you think some brighter colors would improve your painting? --Or constructing questions for art dialogue. Art Education, 37 (1), 12-14.
- Jacobs, H. H. (1997). Mapping the Big Picture Integrating Curriculum & Assessment K-12. Reston, VA: Association for Supervision and Curriculum Design (ACSD).
- Kerry, T. (1982). Effective questioning. New York: Mamillian Co.
- Rowe, M.B. (1986). Wait Time: Slowing Down May Be a Way of Speeding Up. Journal of Teacher Education, 37, 43-50.
- Taba, H. (1967). Implementing thinking as an objective in social studies. [In J. Fair and F. R. Shaftel (eds.) Effective thinking in the social studies: 37th Yearbook. Washington DC: National Council for the Social Studies] 25-49.
- Taunton, M. (1983). Questioning strategies to encourage young children to talk about art. Art Education, 36 (4), 40-43.
- Wassermann, S. (1992). Asking the right question: The essence of teaching. Fastback 343. Bloomington, IN: Phi Delta Kappa.
- Wassermann, S. (1991). Teaching strategies: The art of the question. Childhood Education, 67 (4), 57-59.
- Wiggins, G., & McTighe, J. (1998). Understanding by design. Alexandria, VA: Association for Supervision and Curriculum Development.
- Wilen, W. (1991). Questioning skills for teachers. What research says to the teacher.. Third edition. Washington, DC: National Education Association.