WOULD BETTER QUESTIONS ENHANCE MUSIC LEARNING?

Teachers who ask effective and carefully crafted questions may help students improve their learning and performance.

BY KIRK KASSNER

What kind of teacher are you? Are you primarily the "sage on the stage" or the "guide on the side"?[1] Are your students empty vessels passively awaiting knowledge to be poured in, or are they active thinkers needing guidance in the process of learning, or are they both? Many teachers agree with Mary P. Pautz's statement: "To be an [effective] teacher is to be a facilitator, a guide, a nurturer of curiosity, a cognitive referee rather than a teller, an expert, a disseminator of knowledge."[2] Gardner labels these different approaches as "mimetic" education—in which the teacher presents knowledge and skills and then expects students to duplicate them precisely—versus "transformative" education, in which the teacher tries to develop specific qualities or understandings in the student by posing problems and creating challenges.[3]

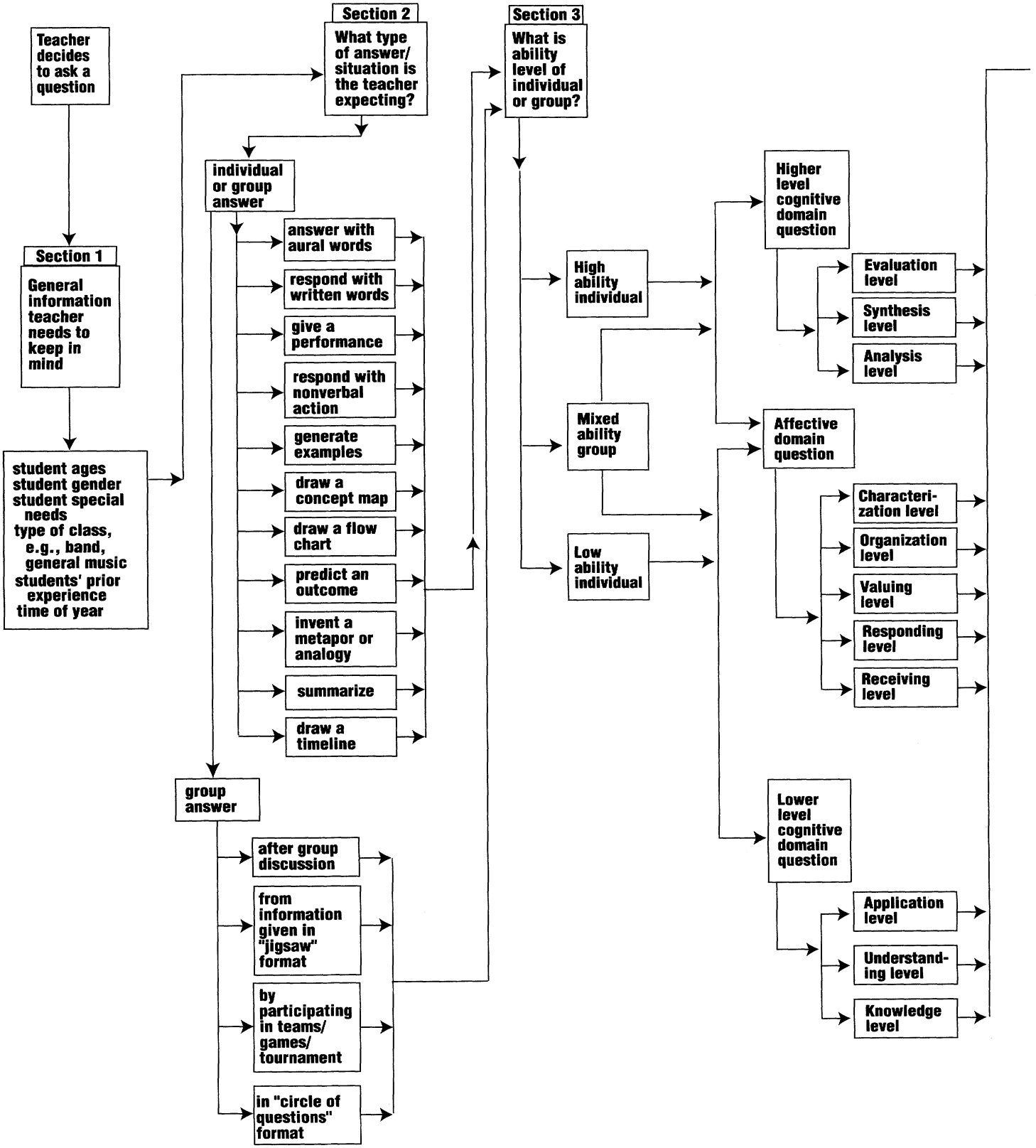
Classrooms are more stimulating when teachers ask questions that evoke higher-level thinking.

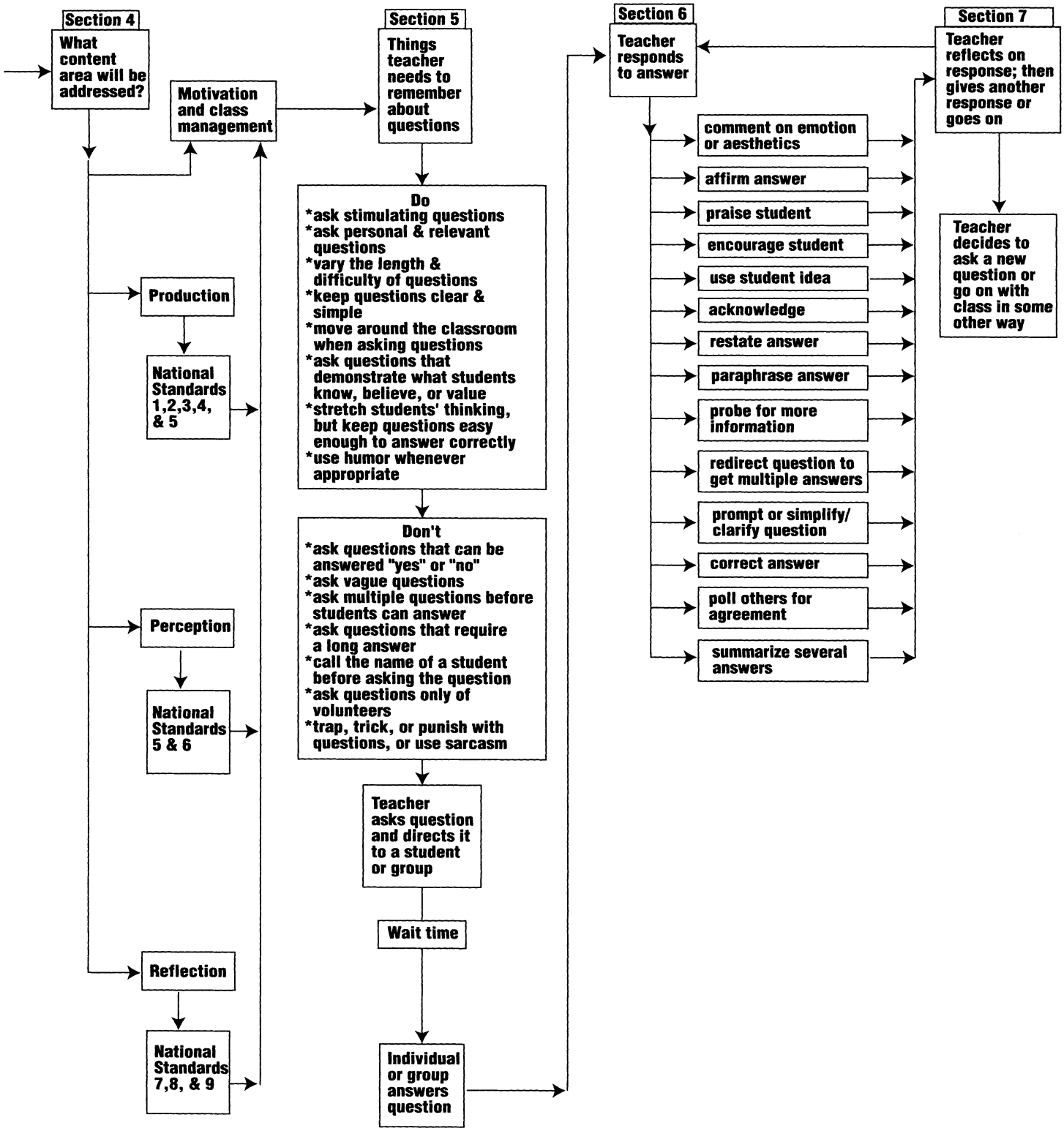
Great teachers of the past, such as Socrates and Buddha, relied heavily on questions to bring enlightenment to their followers. Do you encourage students to approach musical problems from a variety of perspectives and strategies, and are you skilled in responding to students' answers in a variety of ways? Do you create an atmosphere of "relaxed alertness" in students, as advocated by research finding in brain-based learning?[4]

Teachers ask an average of 395 questions per day, but often these questions are the type that require only low-level thinking and single-answer "mimetic" recall.[5] Classrooms would be more stimulating, interesting, and challenging if teachers regularly asked questions that required thinking at higher levels. What are the characteristics of such questions? The flowchart in figure 1 indicates one possible course of thinking to improve

Kirk Kassner, CME, teaches master's classes at the University of Central Florida in Orlando and general music in the Orange County (Florida) public schools.

Figure 1. Flowchart for Asking Effective Questions




Section 4
What content area will be addressed?
Motivation and class management
Production
National Standards 1,2,3,4, & 5
Perception
National Standards 5 & 6
Reflection
National Standards 7,8, & 9
Section 5
Things teacher needs to remember about questions
Do
*ask stimulating questions
*ask personal & relevant questions
*vary the length & difficulty of questions
*keep questions clear & simple
*move around the classroom when asking questions
*ask questions that demonstrate what students know, believe, or value
*stretch students' thinking, but keep questions easy enough to answer correctly
*use humor whenever appropriate
Don't
*ask questions that can be answered "yes" or "no"
*ask vague questions
*ask multiple questions before students can answer
*ask questions that require a long answer
*call the name of a student before asking the question
*ask questions only of volunteers
*trap, trick, or punish with questions, or use sarcasm
Teacher asks question and directs it to a student or group
Wait time
Individual or group answers question
Section 6
Teacher responds to answer
comment on emotion or aesthetics
affirm answer
praise student
encourage student
use student idea
acknowledge
restate answer
paraphrase answer
probe for more information
redirect question to get multiple answers
prompt or simplify/ clarify question
correct answer
poll others for agreement
summarize several answers
Section 7
Teacher reflects on response; then gives another response or goes on
Teacher decides to ask a new question or go on with class in some other way

Cue Words for Questioning in Each Level of Bloom's Cognitive Taxonomy

KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	SYNTHESIS	EVALUATION
name	restate	apply	analyze	create	judge
complete	describe	employ	dissect	invent	select
select	review	solve	compare	compose	choose
list	relate	use	contrast	predict	decide
recall	give main idea	demonstrate	separate	plan	evaluate
identify	summarize	show		design	critique
how	tell me in your own words	classify		improve	justify
what				what if	debate
who					verify
					argue
					recommend

Note: This listing is based on information in *Teaching as Decision Making* by Marvin Pasch et al. (White Plains, NY: Longman Publishing Group, 1991).

chances of asking stimulating questions. Try putting a checklist of question-starters next to your music stand, and consult the flowchart when writing lesson plans. For maximum understanding, it's important to discuss the flowchart's six sections.

Flowchart Sections

Section 1: General information teachers need to keep in mind. Teachers need to have a thorough understanding of child development and of their students' interests, motivations, special needs, and prior learning experiences in music. This is vital to forming questions that are at just the right level and asked in just the right terms so as to capture the students' interest and promote growth in understanding. The form, language, and delivery of questions will change with the students' ages, the type of class (for example, band, general music, or chorus), and with other factors (such as the time of year, proximity to holidays, and community events).

Section 2: What type of answer or situation is the teacher expecting? Answers can be given not only by individuals, but also by groups or the entire class. There are many ways to express an answer beyond the usual aural answer, written answer, or performance answer. Students can signal agreement and disagreement or "yes" and "no" with thumbs up or down or arms crossed and uncrossed. They can generate examples that illustrate a concept, predict an outcome when given a set of circumstances, invent a metaphor or analogy for a concept or procedure, and work in small groups to summarize a lecture and check each other's understanding of the presented material.

David W. Johnson and Roger T. Johnson recommend structuring classes in cooperative learning groups.[6] Some questions can be asked of individuals (to maintain individual accountability), and some questions can be asked of the group (to promote group discussion, reflection, and consensus). Some special techniques are "jigsaw," in which each student in a group is given only one part of the information needed, and "teams-games-tournament," in which teams help each other prepare to compete

with other teams in a tournament of question asking. Many questions that a teacher could ask an individual student might be better posed to a group, as this technique involves more students in the thinking process, allows opportunities to try out ideas and refine them, and creates an atmosphere of cooperation, excitement, and ownership about learning.

Section 3: What is the ability level of the individual or group? Because students in any given class are typically at many levels of ability, teachers should ask questions at different levels: low-level recall for below-average and average students, and high-level probing and redirecting for above-average students.[7] While individuals may be at different levels regarding cognitive thinking skills, groups of students will tend to be of mixed ability, especially if the teacher has done a good job of placing students in groups. Different approaches work best depending on the task, expected outcomes, and the degree of student self-motivation and focus. Marvin Pasch and his coauthors suggest using cue words, or question-starters, for questioning in each level of Bloom's Cognitive Taxonomy (see the Cue Words for Questioning in Each Level of Bloom's Cognitive Taxonomy sidebar).[8] Similarly, Francis P. Hunkins suggests phrases for questioning in the affective domain, such as "Do you like?" and "Are you interested in?"[9]

Section 4: What content area will be addressed? Well-crafted questions in music classes need to focus on specific goals, such as those specified in the National Standards for Music Education.[10] Content Standards 1 (singing, alone and with others, a varied repertoire of music), 2 (performing on instruments, alone and with others, a varied repertoire of music), and 7 (evaluating music and music performances) can be advanced with questions such as "How has this passage improved?" "Is there something we can do to perform this piece more expressively?" and "Would you analyze what went wrong in measure 46?"

Teachers can ask questions that encourage students to analyze and evaluate performance qualities often found on adjudication forms, such as rhythmic accuracy, style, sound quality, blend, balance, and phrasing. Another questioning technique is to appoint a committee of two or three "official listeners" who do not perform, but listen to the group as an audience or judge. The teacher asks the "official listeners" to listen carefully for a particular aspect of performance—for example, blend—and then report to the group after the performance.

The reverse of "official listeners," called "guest artists," is also a useful questioning technique, as well as being great fun. When the music is nearly ready for performance, the teacher announces that several "guest artists" have arrived from a nearby school (or district, state, country, and so on), where they learn music slightly differently from how we learn it in our school. Several student volunteers stand next to the teacher and receive cards instructing them to make specific errors, such as misreading key signatures, performing rhythms incorrectly, failing to follow the director, failing to observe dynamic markings, using poor tone, and so on. The group and the "guest artists" perform together, and then members of the group try to identify the performance errors specified for each "guest artist." To increase the excitement and fun, divide the class in half and keep score for correct answers. Through the laughter will come a lot of learning, and everyone will listen more carefully in the future.

Questioning Strategies for Reflecting on Music Creations

- How well did the composition meet the requirements of the assignment?
- Did you revise? What did you change? How did you change it?
- Did you hear music inside your head? When and how did this happen?
- What worked or was musically interesting about the composition?
- If you had more time to spend on the composition, is there anything you would change?
- How successful was the process? Does anything in it need to change?

Note. This listing is based on information in *Music in Childhood* by Patricia Shehan Campbell and Carol Scott-Kassner (New York: Schirmer Books, 1995).

■ ■ ■ ■ ■ ■

By questioning, rather than telling, teachers can guide the creative process without imposing their own ideas.

■ ■ ■ ■ ■ ■

File photo

Students, when questioned expertly, *want* to volunteer.

Content Standards 3 (improvising melodies, variations, and accompaniments) and 4 (composing and arranging music within specified guidelines) require the use of questioning techniques probably more than any other music endeavor. By questioning, rather than telling, teachers can guide the creative process without imposing their own ideas. Often, a simple question like "How are you doing?" is enough to get students to express their thought processes, reveal the level of musical sophistication they have achieved, and suggest the direction for further questioning guidance. Six questioning strategies may encourage students to reflect on their compositions (see the Questioning Strategies for Reflecting on Music Creations sidebar).[11]

Content Standard 6 (listening to, analyzing, and describing music) questions can relate to aesthetics, history, criticism, and production.[12] Aesthetics-related questions could include: "How does the composer make us feel about this piece?" "What emotions does he evoke?" A history-related question could be: "How does the composer preserve history and culture in this work?" A criticism-related question could be: "Did the composer choose the best instruments to convey musical ideas?" A production-related question could be: "If you were to create music to express an emotion (sadness, for example), which instruments would you choose?" In addition, questioning can help students focus attention on the elements of music they are listening to (such as, which instrument is playing, the form of the piece, whether the opening chord is major or minor, the meter of the piece, and the contour of the melody). Michael L. Masterson recommends helping students make contextual connections by asking them to list ideas and images evoked by the music, such as "regal," "energized," and "mountains."[13] He asks students to analyze and discuss cultural information, possible categories for the music, instruments used, and values symbolized in the music patterns.

Content Standards 8 (understanding relationships between music, the other arts, and disciplines outside the arts) and 9 (understanding music in relation to history and culture) can also be taught through questioning. Jeffrey Aaron recommends using questions through the Arts PROPEL model (production, perception, and reflection).[14] To help students make connections to other disciplines and to history and other cultures, he suggests having students complete questionnaires and answer specific questions in journals. Questions about perception, for example, might include: "What was the loudest section of the composition?" "Which instruments have similar sounds?"[15] Teachers can help students understand relationships through questioning about similarities of process, the possible sources of musical ideas, and events in the historical period during which the music was composed. Students can fill in time lines of events in politics, fine arts, architecture, music, religion, industry, science, transportation, and communication, and then discuss how ideas in these areas influence particular pieces of music. *The Art of Music* by Beekman C. Cannon, Alvin H. Johnson, and William G. Waite[16] is an excellent source of interrelated background material for this kind of questioning, as is *An Introduction to Music and Art in the Western World* by Milo Wold and Edmund Cykler.[17] Many other sample questions for all content standards can be found in the MENC series *Strategies for Teaching.*[18]

Questions can be used to guide student thinking about the National Standards for Music Education and are also useful for teaching appropriate behavior and for motivating and managing the class. In *Songworks I: Singing in the Education of Children,* Peggy D. Bennett and Douglas R. Bartholomew discuss at length the classroom problems of misbehavior, competition, and use of rewards.[19] They state: "We need to build independence, self-determination, and confidence in our students by helping them recognize the personal satisfaction that can come from engaging in challenging, effortful, or courteous tasks."[20] Through questioning, teachers can motivate students without behavioristic rewards, because students are interested in the intrinsic task of learning. Skillful questioning nurtures students' internal rewards of self-esteem and self-confidence.

Even the most skillful teacher, however, will have to deal at times with students who behave inappropriately. When this happens, ask students to think positively about how respectful behavior looks in a music classroom or about how respectful behavior helps us enjoy and accomplish more in learning about music. The following questions can be used when speaking one-on-one with a recurring offender:

- "Can you tell me which of our classroom expectations that action violates?"
- "What is it you were trying to accomplish with that, and do you think you achieved your goal?"
- "Why do you think we have a class rule against doing that?"
- "What could I do to persuade you to stop doing that?"
- "How could you do that differently next time?"
- "On a scale of 1–10, how helpful to the group would you rate that action?"
- "Would you recommend that everyone do that, and, if so, how would it affect our music making?"
- "Would it help to clarify your values if you wrote a description, analysis, and evaluation of this behavior?"
- "That seems so unlike you—has something happened to upset you?"
- "Have we reached the point in which the only choice left is a parent conference, referral to the principal, or finding another class for you?"

Questioning in this way asks for more information and deeper thinking without casting blame and shame, or undermining students' self-esteem. It clearly informs students that a behavior is inappropriate and conveys faith in the students' ability to rethink the situation and come up with a better plan for the future. Questions can convey possibilities for future action without the weight and force of threats and do not have to be backed-down from or apologized for, as a statement might have to be, if new information proves a teacher's initial assessment incorrect.

Section 5: Things teachers need to remember about questions. Allan C. Ornstein reminds us that "the point is not only what you say that counts, it's how you say it, why you say it, and how you follow up."[21] He suggests several specific tips to improve questions:

- Ask questions that are stimulating and not merely memory testing or dull.
- Ask questions that are personal and relevant to the students and draw on their experience.
- Vary the length and difficulty of questions.
- Ask questions that are clear and simple.
- Move around the classroom when asking questions.

■ ■ ■ ■ ■ ■

Do not call the name of the student before asking the question (unless you have reason to believe that the student needs extra help focusing or extra time to think about an answer).

■ ■ ■ ■ ■ ■

Orstein also includes some pitfalls to watch out for when asking questions:

- Do not use questions that can be answered "yes" or "no."
- Do not ask indefinite or vague questions (such as, "What did you notice about our performance of the music?").
- Do not ask multiple questions before students can respond.
- Do not ask questions that require a long answer (such as, "Would someone please compare and contrast the musical styles of Bach and Mozart?").
- Do not call the name of the student before asking the question (unless you have reason to believe that the student needs extra help focusing or extra time to think about an answer).
- If a student doesn't know the answer to a question, do not answer the question for him or her. Rather, redirect the question to the class to answer.
- Do not ask questions from only the bright volunteers.[22]

Many questioning experts stress the importance of giving students enough time (three to five seconds) to think before responding. Thomas R. McDaniel encourages teachers to avoid questions that find out what students don't know and questions that are designed to trap, trick, punish, or accuse.[23] He suggests that teachers instead ask questions that allow students to demonstrate what they know, believe, or value.

Section 6: Teachers' response to students' answers. Marvin Pasch and his coauthors list several choices available to teachers when responding to students' answers: praise, redirect, prompt, correct, or ask a new question.[24] They also recommend probing for more in-depth answers, acknowledging responses, encouraging multiple responses, and polling by raising a number of fingers to indicate placement on a continuum. Teachers could also repeat, restate, or paraphrase student answers and hold their summary until several answers have been gathered.

Using the Flowchart

The flowchart is an attempt to organize and present graphically the ways to construct effective questions. When writing lesson plans or otherwise contemplating how to structure a learning situation, teachers might make decisions in each of the first five categories. For example, a teacher might make the following choices: (1) general information—male and female students about eleven years of age in a general music class in a stable school in March; (2) type of answer or situation expected—groups will discuss the question and the captains will whisper their answers in the teacher's ear; (3) ability level of students and level of question in the cognitive domain—

students are in groups of mixed ability and at least one individual in each group should be able to handle an analysis-level question; (4) what content area—perception and listening; and (5) things to remember about questions—make them stimulating, clear, simple, and stretch students' thinking.

Band, orchestra, and choral teachers can also use the flowchart. After students have learned the pattern of scale construction, for example, a teacher of sixth-grade band might decide to have students "answer" at the application level in the form of playing scales in relay teams of students, the first student playing the lower tetrachord ascending, the second playing the upper tetrachord ascending, the third playing the upper tetrachord descending, and the fourth playing the lower tetrachord descending.

■ ■ ■ ■ ■ ■

The flowchart allows so many combination possibilities that it can serve as a guide for constructing questions about almost any conceivable learning situation in any music class.

■ ■ ■ ■ ■ ■

A teams-games-tournament structure could be used to increase the level of fun and motivation. The teacher asks, "How do you play a major scale that starts on the pitch called concert ____?" After the students have practiced playing the scale in their groups for a few minutes, the teacher listens to two groups at a time with half the remaining class adjudicating one group and the other half adjudicating the other group. The adjudicators silently raise one to ten fingers to indicate the score they believe was earned (ten is the best). After all groups have played, the teacher could offer a second chance so that groups who want to trade in their score could make another attempt. The top score for second tries is only nine points, however. After this round is finished, the teacher could announce round two on the same scale, but with all students changing the tetrachord they play.

Using the flowchart and questioning in this way makes learning much more interesting and exciting, increases students' perception and evaluation skills, and allows the teacher to assess student learning without the tension of formal testing. The flowchart allows so many combination possibilities that it can serve as a guide for constructing questions about almost any conceivable learning situation in any music class.

Notes

1. Alison King, "From Sage on the Stage to Guide on the Side," *College Teaching* 41, no. 1 (1993): 30–35.

2. Mary P. Pautz, "Musical Thinking in the General Music Classroom," in *Dimensions of Musical Thinking,* Eunice Boardman, ed. (Reston, VA: Music Educators National Conference, 1989).

3. Howard Gardner, *The Unschooled Mind: How Children Think and How Schools Should Teach* (New York: Basic Books, 1991), 119.

4. Renate Nummela Caine and Geoffrey Caine, *Making Connections: Teaching and the Human Brain* (Alexandria, VA: Association for Supervision and Curriculum Development, 1991), 87.

5. Meredith Gall, "The Use of Questions in Teaching," *Review of Educational Research* 40 (1970): 707–21.

6. David W. Johnson and Roger T. Johnson, *Circles of Learning* (Alexandria, VA: Association for Supervision and Curriculum Development, 1984).

7. W. David Le Noir, "Teacher Questions and Schema Acitivation," *Clearing House* 66 (1993): 349–52.

8. Marvin Pasch, Georgea Sparks-Langer, Trevor G. Gardner, Alane J. Starko, and Christella D. Moody, *Teaching as Decision Making* (White Plains, NY: Longman Publishing Group, 1991). See also Benjamin S. Bloom, ed., *Taxonomy of Educational Objectives: The Classification of Educational Goals.* Handbook 1. Cognitive Domain (New York: David McKay Company, Inc., 1956).

9. Francis P. Hunkins, *Teaching Thinking through Effective Questioning* (Boston: Christopher-Gordon Publishers, Inc., 1989). See also D. R. Krathwohl, ed. *Taxonomy of Educational Objectives: The Affective Domain* (New York: David McKay Company, Inc., 1964).

10. MENC Task Force for National Standards in Music, *The School Music Program: A New Vision* (Reston, VA: Music Educators National Conference, 1994).

11. Patricia Shehan Campbell and Carol Scott-Kassner, *Music in Childhood* (New York: Schirmer Books, 1995).

12. Carol Ann Goodson and Ed Duling, "Integrating the Four Disciplines," *Music Educators Journal* 83, no. 2 (1996): 33–37.

13. Michael L. Masterson, "Moving beyond 'It's Got a Good Beat,' " *Music Educators Journal* 80, no. 6 (1994): 24–28.

14. Jeffrey Aaron, "Integrating Music with Core Subjects," *Music Educators Journal* 80, no. 6 (1994): 33–36.

15. Ibid, 34.

16. Beekman C Cannon, Alvin H. Johnson, and William G. Waite, *The Art of Music* (New York: Thomas Y. Crowell Company, 1960).

17. Milo Wold and Edmund Cykler, *An Introduction to Music and Art in the Western World* (Dubuque, IA: William C. Brown Company Publishers, 1967).

18. Carolynn A. Lindeman, ed., *Strategies for Teaching* series (Reston, VA: MENC, 1995–97).

19. Peggy D. Bennett and Douglas R. Bartholomew, *Songworks I: Singing in the Education of Children* (Belmont, CA: Wadsworth Publishing Company, 1997).

20. Ibid., 191.

21. Allan C. Ornstein, "Questioning: The Essence of Good Teaching—Part II," *NASSP Bulletin* 72, no. 505 (1988): 80.

22. Ibid.

23. Thomas R. McDaniel, "The Ten Commandments of Motivation," in *The Annual Edition of Educational Psychology 1987/1988,* Fredric Linder and James H. McMillan, eds. (Guilford, CT: The Dushkin Publishing Group, Inc., 1987), 159–163.

24. Pasch et al., *Teaching as Decision Making.* ■