

# The Well-Crafted Question

Inspiring Students To Connect, Create And Think Critically

By Amanda Gunderson, NCTM

When I think back on my first lessons as an undergraduate piano major, I remember experiencing a new combination of profound inspiration and fatigue after every lesson. My teacher asked so many questions requiring critical thinking, careful listening and self-reflection that I jokingly called my piano lessons “brain lessons.” All joking aside, the questions that challenged me in the lesson inspired me to get to the practice room as soon as possible and solve technical and interpretive problems with one goal in mind: artistic expression.

My undergraduate experience was not unique. Historically, some of the world’s greatest teachers have been masters of questioning. The Socratic Method continues to inspire modern teachers around the globe to train young minds to be inquisitive. Experts in the field of education have devoted volumes to the art of asking good questions. Yet, there is

surprisingly little research on the subject of questioning in the applied music lesson; the craft of questioning is rarely addressed as an individual topic. Perhaps this absence is a result of the deeply established master-apprentice relationship between teacher and student in the applied lesson.<sup>1</sup> In this traditional approach, modeling and lecture serve as more significant methods of instruction than questioning. Or perhaps, we feel so pressed for time when teaching a lesson that questions seem dangerous: they open up the potential to derail our lesson plan and go off topic. Modeling and lecturing certainly have their place in the applied lesson and can be efficient teaching tools, but our approach to questioning largely determines how we connect with our students and how we encourage them to be creative, critical thinkers.

Questions serve a variety of purposes in the applied lesson, some of which seem to be only tangentially related to music. In the manual *Questioning and Teaching*, J. T. Dillon encourages teachers to devise questions with a purpose in mind.<sup>2</sup> In any given lesson, a teacher may ask dozens of questions, each with a different purpose. The first stage of crafting a good question begins with identifying the many purposes of questions and considering how to apply them in the lesson.

## The Function Of Questions

Some questions function less as part of instruction and more as general interaction within the lesson. For example,

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the phrase “Would you please sit down?” functions as a polite direction in disguise. Other non-instructional questions provide friendly interaction at the beginning of a lesson. Even though questions about a student’s interests and experiences may seem unrelated to instruction and the music, they can establish an atmosphere of trust that supports a healthy environment for taking musical risks.<sup>3</sup> A simple inquiry about recent events, such as the school day, vacation or another extracurricular activity indicates teacher interest in the student’s life and happiness outside of the lesson. In addition to connecting with the student, this question (while time consuming) can provide a wealth of information about the student’s emotional, physical and mental state, often revealing attitudes before they surface in reaction to a musical activity. A sensitive teacher may even adjust plans or pacing after hearing the student’s response. Conversely, if a teacher asks too many questions about life and activities outside of the lesson, the student may become uncomfortable and doubt the teacher’s interest in teaching and music making.

Questions can also serve as effective diagnostic tools for measuring a student’s knowledge. These questions intended

for assessment are often closed or convergent questions, meaning they require one specific answer. In the applied studio, closed questions can serve as efficient “mini-tests” keeping students on their toes and drawing attention to specifics in the score.<sup>4</sup> While response time to closed questions tends to be brief, closed questions can actually be *inefficient* for assessing student understanding because they do not reveal *how* the student arrived at an answer. A correct answer does not necessarily indicate sound reasoning or understanding. Closed questions also tend to result in conversational dead ends, especially in the private lesson, where there are no other students to join the conversation.

Recent perspectives in educational psychology suggest exploring more open-ended or divergent questions for the purpose of stimulating students’ imaginations and encouraging problem-solving skills. Supporters argue that the main educational objective is to mold students into critical thinkers and independent learners.<sup>5</sup> Therefore students not only need to acquire knowledge, but also need to use that knowledge critically.<sup>6</sup> Open or divergent questions often require students to tap into higher levels of thinking, such as application, analysis, synthesis and evaluation as illustrated in Bloom’s Taxonomy of skill in the cognitive domain.<sup>7</sup> Cue words serve as a helpful starting point for identifying and formulating questions at various levels of thinking (Table 1).

Cognitive Domain Level	LOW	KNOWLEDGE	COMPREHENSION	APPLICATION	ANALYSIS	SYNTHESIS	EVALUATION	HIGH
Cue Words		Name Complete Select List Recall Identify Who When Define Identify State Write	Compare Conclude Contrast Which Distinguish Explain Rephrase Fill in Illustrate	Apply Develop Test Choose Solve Tell Indicate Demonstrate Show	Analyze Compare Discriminate Distinguish Recognize Relate Contrast Separate	Create Compose Write Suggest Make up Plan Formulate	Choose Decide Debate Critique Argue Recommend Check Judge	

Table 1: Cue Words in the Cognitive Domain.<sup>8</sup>

Whether these cue words are used as imperatives (“*Compare* the dynamics in these two phrases.”) or in questions (“What do you notice if we *compare* the dynamics in these two phrases?”) they elicit a response from the student that is more than one word and may have more than one suitable answer.

Another important purpose of questions addresses the student’s opinions and preferences toward subject matter. Since the answers to these questions do not necessarily require

or build upon prior knowledge, they comprise a separate category in Bloom’s taxonomy of educational objectives referred to as the affective domain. While it may seem easy to dismiss this purpose of questioning as too time-consuming or irrelevant to knowledge acquisition, Frances P. Hunkins warns that we cannot divorce our values and emotions from learning and thinking.<sup>9</sup> Like friendly interaction questions at the beginning of a lesson, questions in the affective domain reinforce students’ individual worth and link their cognitive

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experience to their personal experience. Hunkins goes so far as to propose that the ultimate goal of questions in the affective domain is to foster “a level of thinking and behaving that demonstrates an effective incorporation of affective understandings and skills into a personalized philosophy—into acceptance of particular values and the responsibility to live by them—a type of personalized credo to principles and ideals.”<sup>10</sup> It seems reasonable to assume, then, that students who have more opportunities to express their values and make judgments in the applied lesson may arrive at answers to important life questions like “Who am I?” and “What do

I stand for?” sooner than those who don’t. David Krathwohl, author of *Taxonomy of Educational Objectives, Affective Domain*,<sup>11</sup> concludes that the ultimate purpose of affective domain questions rarely comes to fruition during formal education, since students often need more time and experience to arrive at a personal philosophy.<sup>12</sup> In other words, our affective domain questions won’t turn students into mature artists overnight, but we should still ask questions that cultivate this aspect of their personhood. To identify and formulate questions in this domain, Hunkins offers another list of cue words in Table 2.

Affective Domain Level	LOW	RECEIVING	RESPONDING	VALUING	ORGANIZATION	CHARACTERIZATION	HIGH
		Cue Words	Are you aware Have you heard Will you accept Do you know Do you prefer Indicate whether Do you appreciate Have you ever Would you like Are you interested	Are you willing Do you observe Do you do Do you practice Are you interested in Will you accept Do you like Indicate which	Do you like Do you participate List which Defend Are you loyal to Do you accept Do you agree Rank Should	Does this imply Have you weighed the alternatives Please explain Do you agree As you view In your opinion	

Table 2: Cue Words in the Affective Domain.<sup>13</sup>

All of these cue words create questions that encourage students to make choices. Allowing choices in the lesson encourages students to discover and trust their own artistic voice. As they explain their reasons behind their choices, we can enjoy the added benefit of assessing their understanding of underlying concepts.

Questions in the applied lesson can range from logistical to creative, simple to complex, practical to personal. However, even the best-intended and widely varied questions can flop if poor delivery gets in the way.

## Skilled Question Delivery

Thankfully, good question delivery requires a few basic skills that can be refined relatively quickly, especially with intentional self-evaluation and peer-evaluation. Like the “basic form” of a golf swing, questioning includes preparation and follow-through:

PREPARATION	Use clear, appropriate vocabulary
DELIVERY	Ask one question at a time
FOLLOW-THROUGH	Give the student ample answer time

Regarding the preparation stage, some argue that the only “successful” question is the question planned and rehearsed in advance.<sup>14</sup> This approach may prove helpful for nervous young teachers or for those trying to restructure old questions for different purposes. However, sticking to a stringent repertoire of rehearsed questions leaves little room for spontaneity in the lesson and resembles more of a teacher-centered teaching approach in disguise. If students are willing to think on their feet in response to our questions, it seems only fair that we should be willing to think on our feet and pose spontaneous questions when appropriate. Still, some planning may be necessary to form questions that are clear and that avoid overly advanced or vague vocabulary.

Sometimes teachers try to clarify vague questions by asking a different question resulting in a pile of questions and a confused student. Planning clear questions can prevent these situations. Excessive strings of questions may point to another type of communication breakdown. In *Thinking As You Play*, Sylvia Coats provides the example of a teacher asking a string of questions after a student performance: “What about the accents, the dynamics? What about the tempo? Was it too fast?”<sup>15</sup> This succession of questions

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intrudes upon the student's response, squashing opportunity for self-reflection. Instead, the questions are critiques in disguise. By committing to "pitching" one question at a time, teachers will find themselves crafting clearer questions and communicating to the student an expectation to respond.

Follow-through can be as important after questions as it is in athletics. It is extremely tempting to fill the empty time after a question either by answering it oneself or by asking another question. Studies show that ample answer time—at least three seconds—can improve the quality and length of students' answers.<sup>16</sup> Violinist Oliver Gledhill stated this principle eloquently in an article for *Strad*, "As in music, so in questioning, we need to learn to value silence."<sup>17</sup> When faced with silence, a few seconds can seem like an eternity, so a peer, a video recorder or even a clock with a second hand can help to keep track of "real" time.

These basic questioning skills can be improved relatively quickly with practice. Once teachers are fluent with the "basic form" of questioning, they can rule out errors of delivery and shift the focus of their evaluation to the content of their questions.

## Improving Question Content

One way to improve question content is to try different types of questions. By adopting cue words from either taxonomy or supplying additional terms, teachers can tap into various levels of student cognition and emotion. Marienne Uszler has already begun the process of tailoring Bloom's taxonomy to piano pedagogy with her major contribution to the topic called *That's A Good Question...* In this rich

but concise text, she adopts a few question starters that push students into the higher cognitive domains, including:

**Why...**do you think the editor suggests this fingering?

**What if...**you changed these major chords to minor?

**Can you imagine...**another way to pedal this section?

**Is it possible...**to change this lullaby into a dance?

**How else could you...**make this passage sound mysterious?

**Have you ever wondered...**why Bach's pieces never use the highest or lowest keys?<sup>18</sup>

As an exercise, she includes a piece called *Hurry!* by Edwin McLean and encourages readers to compose different types of questions before comparing with a supplied list of closed and open questions. She is quick to note that her list and the reader's list may differ, which is good, since she and the reader have different students in mind as they compose questions. The important point is brainstorming specific questions for specific pieces of music can be an enlightening experience, especially when done in groups with other teachers. The differences between group members' lists may highlight learning tendencies that otherwise might not have been considered in the question-forming process.

Uszler also recommends adjusting questions to students' personalities. She breaks down personalities into four groups, noting that students will most likely not fit perfectly into just one group: 1) Followers; 2) Doers; 3) Thinkers; 4) Feelers. Particularly helpful are the sketches she provides that draw connections between behavioral characteristics and attitudes toward questions, summarized in Table 3.

	Followers	Doers	Thinkers	Feelers
What They Do Best	Work well within limits	Think fast on their feet	Research; analyze	Empathize with others
What Makes Sense to Them	Establishing routines	Taking risks	Using logic to reach a solution	Deciding according to feelings over logic
What's Hard for Them	Divergent questions	Repetition, Explaining	Following others' rules	Criticism; Unfriendly people
Questions THEY ask	How do I do it? When is it due?	Is this necessary?	Could I do it this way instead?	What does this have to do with me?
Attitude about questions	Want to have the RIGHT answer	Answering questions is a nuisance	May try to rephrase so they can answer as they want	Try to give the answer the teacher wants; Worry about why a question was asked

Table 3: Adapted from Uszler, pages 48–50.

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To support the different approaches to the four personality types, Uszler compares lists of different questions that all apply to the same intermediate piano piece. While some of the questions require a similar response, the difference in content reflects an appreciation for each personality type. For example, her discussion of dissonance in the fourth measure of Beethoven's *Eccossaise in G Major, K. WoO 23* varies quite a bit for each personality type. For the Follower, she begins with very direct questions about the chord content of the first four bars, then asks "Does Beethoven ever break the 'chord rules?'" In contrast, the Doer first blocks the left hand chords and then she says, "Look at measure 4. Something sounds strange here. I wonder what it is?" After blocking and labeling the chords, she asks that Thinker, "What's the chord surprise that Beethoven pulls in measure 4?" Then later, she follows up, "Is there a surprise in the right hand too?" Finally, the Feeler must find all of the musical surprises in the piece and then explain them. Again, these specific examples have inherent value, but even more valuable is the experience of tailoring questions to different learning styles.

Another popular method for improving questioning is to change the tone of closed questions through role playing. In daily life, closed questions serve as a means to acquire information. Consider the following conversation that begins with a closed question and ends with a typical follow-up from the questioner:

Questioner: "Excuse me, what time is it?"  
Answerer: "It's 2:15 P.M."  
Questioner: "Thank you! I'd better be going."

Imagine a different follow-up to the same closed question:

Questioner: "Excuse me, what time is it?"  
Answerer: "It's 2:15 P.M."  
Questioner: "Good job!"

How strange it would seem to congratulate someone on telling time correctly! The more common response is to thank someone when they provide an answer that we need. Yet, in the piano lesson, or in any teaching environment, teachers are always asking questions to which we do not need an answer, or "known information questions."<sup>19</sup> By assuming a role where the teacher "needs" the information, such as playing detective, or switching roles to have the student guide the teacher's playing, the teacher can model vulnerability, fallibility, curiosity and problem-solving skills.<sup>20</sup> Often times, these role-playing activities also give students confidence, a sense of control and a good laugh.

There are numerous factors to consider when constructing purposeful, creative and appropriate questions. Perhaps a practical starting point is an objective assessment of our "basic form" and our students' attitudes toward questions. Recording devices offer honest and accurate feedback, serving as invaluable tools for this process. With consistent evaluation and reflection, teachers of all experience levels can improve question delivery and content. The reward for this life-long endeavor is a studio full of students that are connected, creative, critical thinkers. ~

## Notes

1. Marianne Uszler, *That's A Good Question...* (Fort Lauderdale, Florida: The FJH Music Company, Inc., 2003), 9.
2. J.T. Dillon, *Questioning and Teaching: A Manual of Practice* (New York: Teachers College Press, 1988), 64.
3. Oliver Gledhill, "The Art of Questions," *Strad* (December 2001): 1406.
4. Uszler, *That's A Good Question...*, 16.
5. Sylvia Coats, *Thinking As You Play*, (Bloomington: Indiana University Press, 2006), 83.
6. Robert T. Pate and Neville H. Bremer, "Guided Learning Through Skillful Questioning," *Elementary School Journal* 67 (1967): 418.
7. Benjamin S. Blook, *Taxonomy of Educational Objectives*, (New York: David McKay, 1956).
8. Compiled from lists by Kirk Kassner, "Would Better Questions Enhance Music Learning?" *Music Educators Journal* 84 (January 1998), 32. See also Francis P. Hunkins, *Teaching Thinking Through Effective Questioning*, (Boston: Christopher-Gordon Publishers, 1989), 54.
9. Hunkins, *Teaching Thinking*, 74.
10. Hunkins, *Teaching Thinking*, 88.
11. David Krathwohl, *Taxonomy of Educational Objectives, Affective Domain*, (New York: David McKay, 1964).
12. Krathwohl as paraphrased in Hunkins, *Teaching Thinking*, 88.
13. Hunkins, *Teaching Thinking*, 79.
14. Dillon, *Questioning and Teaching*, 65.
15. Coats, *Thinking As You Play*, 83.
16. T. Kerry quoted in Gledhill, *The Art of Questions*, 1406.
17. Gledhill, *The Art of Questions*, 1406.
18. Uszler, *That's A Good Question...*, 27.
19. Hugh Mehan, "What Time Is It, Denise? Asking Known Information Questions in Classroom Discourse," *Theory into Practice*, 18 (October 1979): 285.
20. Gledhill, *The Art of Questions*, 1406.