How can we Ask Questions that Stimulate Students to Think?

With Claire Wurtzel

11/3/10
Claire Wurtzel is the Director of Faculty Development for the Churchill School and Center in New York, working within and beyond the school to develop the Churchill Center for professional development, and an Educational Program Co-Director for Hidden Sparks. Previously, Ms. Wurtzel was the Director of Faculty Development for the New York City Schools Attuned initiative for All Kinds of Minds, an institute founded by Dr. Mel Levine and Charles Schwab to help educators work effectively with struggling learners. As Director, Ms. Wurtzel oversaw Schools Attuned courses, mentor and facilitator training for over 400 New York City schools. In her role with Hidden Sparks, Claire is involved in training, supervision and ongoing mentoring to the Hidden Sparks teams of coaches, principals and Internal Coaches in 30 schools and in other Hidden Sparks programs.
Goals of this Session

• To consider the role of effective questioning in moving students to higher levels of thinking

• To be able to use a broad range of questions to engage all the students

• To become more knowledgeable in how to de-center the role of the teacher in class discussions
Learning how to ask powerful questions is a very valuable skill and takes time and deliberate practice to develop.

In this session we will explore various kinds of questioning techniques and the multiple reasons for questioning students.

We will also discuss ways to be good listeners that validate students’ ideas. It is important that students learn listening skills as well.
What are some general guidelines for developing questioning skills?

• Ask clear questions as many students get stuck on unclear questions—even if they know the answers.

• Wait time: time to process the question, consider possible answers. Research shows that providing wait time increase the number of answers you get from students.

• Ask one question at a time. Make your questions concise.

• Leave space for students to speak and to question each other.

• Use self-questioning as you prepare your instruction:
  • “What are the main questions I want to ask students during class”?
  • “How can I ask the “just right question” to each student”. This respects their cognitive strengths without leaving students open to failure.
How can I develop questions that pull in a range of students?

• Don’t respond verbally to each response. A nonverbal acknowledgement and calling on another student to respond or clarify helps bring in other voices. Increase the number of students who respond -not the same few dominant voices you hear all the time.

• Develop questions that vary and include simple as well as more complex questions to meet the range of student levels.

• Break down complex questions into smaller, component questions. Ask each student one part of the big question. Distribute responsibility among the students. Students learn to listen to each other and build on each other’s responses.

• An example of a complex question that has smaller questions embedded in it: “What are the similarities and differences between Roman gladiator games and modern football”?

© 2010 Hidden Sparks
What are some ways to teach good listening skills?

• Skills of questioning include being a good listener.

• Listening includes hearing emotions too. Teach students to understand the feelings of the person speaking. The writer, Susan Wilson says, “Squint with your ears.”

• An activity: Students work in pairs. One of the pair tells something about the topic. The listener paraphrases what he heard, and practices being a good listener by showing interest, saying “up-huh” now and then and uses body language such as nodding their head and making eye contact.

• Practice having students respond to each other rather than having the questions and answers revolve around you.

• Teach students some helpful sentence stems to keep a dialogue moving. Some examples:” I agree because…” “ I would like to say more about….” “ I know that’s true because…” “What evidence do you have to support your opinion”?
How can I apply Bloom’s Pyramid to raise the level of my questioning?

- We tend to check for facts and ask **Knowledge questions**: they ask students to recall facts such as: who, what, where, when. These kinds of questions are generally convergent- requiring one correct response.

- Divergent questions allow students to explore different avenues or scenarios.

- To become flexible thinkers give students opportunities to express their ideas and learn to feel comfortable with divergent opinions. Utilize Bloom’s pyramid to ask questions that help students develop higher order thinking, especially critical thinking, problem solving and creative thinking.
How can I apply Bloom’s Pyramid to raise the level of my questioning? (continued)

Comprehension Questions: asks students to show their understanding. Locate, explain, describe. “Explain the meaning of collaboration in your own words”.

Application: you have to use what you’ve learned. Demonstrate, construct, and calculate. “How is this situation an example of collaboration”?

Analysis: Examine critically. Compare, contrast, categorize, seeing patterns.” Outline or diagram the key steps in creating a collaborative conversation”?

Synthesis: Put together in a new way. Compose, invent and produce. “How would create a collaborative conversation with a person you had trouble with”?

Evaluation: Determine the worth or value based on criteria: Judge, predict, verify. “Which method of problem solving do you think was more effective”? 
How can I de-center my questioning?

• You don’t have to be the center of all discussions and restate and clarify every response made by a student.

• Encourage student question-asking behavior and peer questioning to improve student engagement. Teach students some helpful sentence stems to keep a dialog moving. Examples:

• “I agree because…” “I would like to say more about…..” “I know that’s true because…” “What evidence do you have to support your opinion”?

• It takes practice and is as important as the content you teach and creates a sense of community.
How can I expand on the types of questions I ask in class discussions?

Open-ended questions:

• Questions with “how” and “why,” keep conversations moving and elicit a wide range of answers.

• Keep the discussion authentic and allow students to say what they think. Accept and expand on a response. Don’t ask an open-ended questions and then push for the response you want.

• The opposite is the closing down question-get the answer and move on to another question.

• Don’t stop too early in the questioning process. When trying to learn about a student’s concern if you accept the first thing a student says you might not get at the real problem.

• Ask follow-up questions in a non-judgmental manner to get to the concern.
How can I expand on the types of questions I ask in class discussions? (cont’d)

Questions that ask for clarification or for more evidence:
• When a student offers an opinion ask for evidence in a nonjudgmental manner -not as a challenge. It’s an invitation to convey one’s meaning in a clear way.

• “What are your reasons for saying that”? “What other information do we need to know”?

Questioning that helps students take on more of the thinking in class discussions. For example:

• “We know that----- but can anyone tell me how to---- then, what would be the next step?” Or, you show the students that you’re doing part of the work,” I’ll tell you the beginning and you will do the next part”.
• Check for understanding. “How does this compare to --- “
How can I expand on the types of questions I ask in class discussions? (cont’d)

• Help students build on each other’s responses:
  • “Is there a connection between what you said and what David said a moment ago”?
  • “How does your comment fit in with what Molly said about-“?
    “Does your comment support or challenge what Sam said”?

• **Categorizing questions** help students organize their thinking and aids memory:” How would you group these”?

• **Compare and contrast questions** help students analyze what they are learning: “How are the two leaders alike and different”?

• **Observation questions**: I want you to observe and notice when…focus their observations.
How can I expand on the types of questions I ask in class discussions? (cont’d)

• **Ordering and prioritizing questions** help students separate the main ideas from the less important ones: “Which do you think is most important”?

• **Communicating questions** help students listen and express ideas in their own words: “Can you paraphrase what you heard Sara say”?

• **Hypothetical questions**, “What if” questions and **justifying questions**:
  - Students consider how changing one part of an event might change the outcome.
  - If your group doesn’t take risks ask questions to encourage creative and critical thinking:
    - “What would have happened if three children drank all the juice”?
    - “What would happen if the story had been set in today’s world”?
How can I expand on the types of questions I ask in class discussions? (cont’d)

- **Perspective taking questions**: questions that help students view issues from multiple perspectives and think creatively.
  - “How would the American Revolution be viewed from the perspective of the British”?
  - “How would you like to be…. Why or why not”?

- Invite students to **summarize** what has been said.
  - “What do understand better as a result of today’s discussion”? Many students benefit from hearing the information a second time
  - “What do you understand better as a result of our discussion”?

- **An important reminder**: Some students need to see the question and responses. Write them down. Students with memory challenges can’t keep all the pieces in their heads and think of new ideas at the same time.
How can we expand on our questioning around a text?

• Questioning about a text: pre-reading, during the reading and post-reading.

• **Pre-reading**

• Prepare for what they will be reading. Tap into prior knowledge and expectations.

• Have the students develop predictive or anticipatory questions which build interest in the text and engage students’ minds.

• Searching for answers engages them. If they asked to predict an outcome, they will read closely for specific information that will support their predictions.
How can we expand on our questioning around a text? (Cont’d)

After a reading a selection:
• This may be a time to ask creative questions such as:
• “Imagine the author will be visiting our class next week, what questions would you like to ask her”?
• How would you like to be…. Why or why not?
• If you were… what would you have done?
• “What does the author want you to believe”? “Why do you think that”?

Post-Reading activities encourage student to reflect upon what they have read. For the information to stay with the students, they need to go beyond simply reading it to using it. Using it can involve answering questions, summarizing main ideas, drawing
Cubing is a strategy that uses Bloom’s levels of questioning. Put a different level question on each side of the cube. Allow students to answer whichever questions they want to. It is an assessment for you.

**Socratic Seminar, also called Text-based Discussion:**
Socrates taught by asking questions. Talmudic scholars do the same thing. Students sit in a circle facing each other and respond to a text- given a key question or two. They must reference the text. Often the teacher is a participant and not the leader.
How can we expand on our questioning around a text? (Cont’d)

- **Fishbowl or Inside-Outside Circles**: two circles- an inner circle and an outer circle (fishbowl). Each group prepare questions based on a reading. Students in the outer circle ask questions based on the reading. All outer circle people listen carefully to know when to ask the next question. After 15-30 min. the students switch places.

- **Question-Answer Relationships (QAR) Strategy**
  - QAR is a strategy that equips students to tackle questions more effectively by teaching them to recognize different types of questions.

- **What other techniques have you used?**
How can we expand on our questioning around a text? (Cont’d)

Right There questions are formulated with words taken exactly from the text. Answers can be found in the same sentence.

Think and Search questions ask students to think about the information they read and to search through the entire passage to find information that applies. The answer is frequently “between the lines”.

- Other questions can’t be answered by looking at the page. These questions ask students to analyze and evaluate.
- Questions that extend the thinking and make kids manipulate prior information
  - Such as: Why do you suppose…”?
How can I Plan my Units around Essential Questions?

- You only need a few big organizing inquiry questions for a unit. Share the questions with students and keep the language student friendly.

- Essential questions are sometimes called inquiry questions, focus questions or key questions that frame your instruction. Each has a slightly different meaning.

- Essential concepts should be revisited over the entire year. The answers to essential questions are what you want students to remember after they have forgotten the details of a study.

- Some examples of essential concept questions:
  - “What does it mean to be a good friend”? “Why do we have wars”?
  - “How is mathematical knowledge useful in everyday life”?
• Have students summarize what has been thought about and said. It helps students identify the important points and think about the main idea. This is particularly important for students who have attention issues or receptive language challenges. They benefit from hearing the information a second time.

• “What are the one or two important ideas you heard in our discussion”? “What do you need to hear more about”?

• You might end a lesson with an exit card with a question that might summarize student’s learning or see what else they would like to learn about the subject. This is also an assessment for you. Ex. “What surprised you about today’s lesson”?
How can I use exit cards to expand my questioning technique?

• “List 3 main points from today’s lesson, 2 questions you have and 1 way in which the lesson relates to a previous lesson”.

• “Generate 3 questions around today’s work- a clarification you need, a test question you think would be good, a critical thinking question”.

What role can questions play in note taking?

• You can use the Cornell note taking and questioning technique with older students.

• You take notes on the right side of the page and after reading or listening to a lecture go back and write questions on the left side of the page. This is also a good homework assignment.
What should I be thinking about as I prepare a lesson?

• “What are the main questions I want to ask students during class”?

• “How can I ask the “just right question” to each student”. This respects their cognitive strengths without leaving students open to failure.

• “How can I convey my questions in a concise way”? Is there a way I can write down the steps for an activity so that if the students don’t see the sequence I get them down quickly”?

• Develop a list of questions at different levels to engage students at their cognitive level. Start with fact based questions to jog s students’ memories to answer broader questions. Also, success with smaller questions give students confidence to answer more challenging questions.
What should I be thinking about as I prepare a lesson? (Cont’d)

• If students answer all your questions correctly- it’s time to move to higher level questions. If they get most questions wrong, then go back to your plan and revise it.

• What do we do when kids can’t answer a question?
  • If you tell the student the answer, or call on another student, the student is left feeling bad. Or, relieved and hopes to be forgotten.

• Neither of these outcomes helps the student or your understanding of the student. Break down the question to see what part the student understands? Where is the error in thinking? This process keeps the student engaged and lets him know you care about his learning.
How can I use self-reflections to improve my questioning?

• Ask yourself some of the following questions:
  • “What was the most interesting question I asked today”?
  • “What puzzled me today”?
  • “What would I do differently next time to make the dialogue among students better”?

• After all the time spent on questioning I’d like to add some words of caution:
  • Don’t ruin kids’ love of reading by constantly asking questions.
  • Sometimes silent encouragement is better than a question. You don’t want to stop the flow of a discussion by asking a million questions.
<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, November 17, 2010</td>
<td>Core Classroom Practices, for All Kinds of Learners, in Judaic and General Studies</td>
<td>Dr. Judah Weller</td>
</tr>
<tr>
<td>Wednesday, December 15, 2010</td>
<td>Mid-Year Modifications to Your Classroom to Enhance Student Success</td>
<td>Karen Kruger, M.Ed</td>
</tr>
<tr>
<td>Wednesday, February 9, 2011</td>
<td>Teaching Reading to Students with Diverse Reading Levels</td>
<td>Amy Goldman, M.S., M.A.</td>
</tr>
<tr>
<td>Wednesday, March 2, 2011</td>
<td>Non Frontal Review Techniques for the Classroom</td>
<td>Rivkah Dahan, MSEd</td>
</tr>
<tr>
<td>Tuesday, May 17, 2011</td>
<td>Assessment and Differentiated Instruction</td>
<td>Dr. Jane Gertler</td>
</tr>
</tbody>
</table>

For more information visit: www.hiddensparks.org
Hidden Sparks is a non-profit fund whose purpose is to help children with learning differences reach their full potential in school and life. Hidden Sparks develops and supports professional development programs for Jewish day schools to help increase understanding and support for teaching to diverse learners.

Guided by a philosophy that by helping schools meet the needs of children with learning and behavioral differences, ultimately all students will benefit. Hidden Sparks’ programs combine professional development in learning and positive behavioral support, guided classroom observation and one on one coaching. The Hidden Sparks model and program is currently in 21 Jewish Day Schools/Yeshivot in New York and 7 in Boston, through a partnership with Gateways: Access to Jewish Education.
Contacting Hidden Sparks

Contact Claire Wurtzel: cwurtzel@churchillschool.com

Contact Hidden Sparks: www.hiddensparks.org margaret@hiddensparks.org (212) 767-7707