Today’s Objectives

- Learn questioning strategies that foster thinking with increased rigor.
- Gain an understanding of questions that lead to higher-order thinking and questioning across content areas.
- Explore how to incorporate these opportunities in lesson planning.

Today’s Objectives

Four Corners Discussion

1. There is very little class participation during discussions. They don’t get the point; I have to tell them.
2. Discussion is a waste of time; I have to cover the curriculum.
3. Students don’t know how to ask good questions or give good answers.
4. It is difficult to ask questions that are outside the teacher’s primary content area.

Your Thoughts

• Create a T-chart. Record your responses.

<table>
<thead>
<tr>
<th>Why ask questions?</th>
<th>What makes questioning effective?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Jigsaw Readings

• Read the “Read All” section.
• Read your assigned section to become the expert on that topic:
  – Sequencing
  – Wait Time
  – Probes
  – Planning

Revisit T-Chart

• Revisit your T-Chart. Add any information desired.

<table>
<thead>
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<tr>
<td></td>
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</tr>
</tbody>
</table>
Why ask questions? (left column)
• Identify prior knowledge
• Assess student performance
• Maintain student engagement
• Lead students to “learning moments”
• Keep the teacher’s focus
• Enable the teacher to:
  – Build on student answers
  – Provide immediate feedback

What makes questioning effective?
• Voice inflection
• Sequencing
• Types of questions
• Wait time
• Cognitive complexity
• Core questions
• Student responses

Lesson Debrief
• How was questioning used in this lesson?
• How did questioning aid in your understanding of the content?

Take notes from this lesson debriefing on the next available page in your Take-Away booklet.

Cognitive Complexity
On average, during classroom “recitation,” teachers ask approximately:
• 60 percent - lower cognitive questions
• 20 percent - procedural questions
• 20 percent - higher cognitive questions

Prediction
What percentage of each of the following questions do you think typically occur in a classroom during “recitation” time?
• Lower cognitive questions
• Procedural questions
• Higher cognitive questions

Agree/Disagree
• Work in groups of three.
• Read through the statements on the cards.
• Sort the cards into two categories based on your opinion:
  – Agree
  – Neutral
  – Disagree
Agree/Disagree

- From the statements you sorted into the Disagree category, which one surprised you the most?
- What statements were difficult for your group to agree upon?

Disclaimer

“The use of taxonomies and classifications systems (e.g., Bloom’s, Aschner and Gallagher’s Question System) alone, will not improve the quality of teacher questions. Nor is there evidence that they improve the quality of student responses.”

Dantonio and Beisenherz, 2001

Highly Effective Questioning

- Participate in a simulation of the Highly Effective Questioning model.
- Record your insights in your Take-Away booklet.
- Revisit and revise your Unanswered Questions on page 1.

HEQ Step 1

Label, Identify, Find

- Review the map.
- What facts do you observe?

HEQ Step 2

Connect, Compare, Contrast, Infer

- Review the map.
- What are the similarities between the continents shown on the map?
- What are the differences between the continents shown on the map?
HEQ Step 3

Sequence, Classify, Integrate, Pre-summarize

• Review the map.
• What trend or trends do you see?

Highly Effective Questioning, Hannel, 2005

HEQ Step 4

Decode, Interpret (questions)

• Review the map and the graph.
• Read the question on the graph: Is population explosion to blame?
• What is the question asking, and why?

Highly Effective Questioning, Hannel, 2005

HEQ Step 5

Encode, Answer (questions)

• Review the map and the graph.
• Answer the question on the graph: Is population explosion to blame?
• What evidence do you have to support your opinion?

Highly Effective Questioning, Hannel, 2005

HEQ Step 6

Apply, Predict

• Review the text.
• How would you apply this information to solutions for world hunger?

Highly Effective Questioning, Hannel, 2005

HEQ Step 7

Summarize, Conclude

• Review your experience.
• How would you summarize what you have learned?

Highly Effective Questioning, Hannel, 2005

Humpty Dumpty

Humpty Dumpty sat on a wall.
Humpty Dumpty had a great fall.
All the king’s horses
And all the king’s men
Couldn’t put Humpty Dumpty together again.
Question-Answer Relationship (QAR)

- Based on research by Taffy Raphael (1983, 2010).
- When students understand how to craft questions, they do better at both asking and answering questions.
- Use this strategy for turning discussion over to students.

Two basic categories
- In the Book
  - “When did the American Revolution begin?”
- In My Head
  - “What does it feel like when you lose your privileges?”

Humpty Dumpty sat on a wall.
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All the king’s horses
And all the king’s men
Couldn’t put Humpty Dumpty together again.

Right There: The answer is right there in the text in the same sentence.
Think and Search: The question is just like an example in the text, but the numbers are different.

Create your own QARs for a different nursery rhyme.
A Culture of Questioning

What would a culture of questioning look like on a school campus?

Culture of Questioning

Culture of Questioning

Less/More

• Read each statement.
• Categorize it under one of the following:
  – We need less of this activity in classrooms.
  – We need more of this activity in classrooms.

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Closing

Final Questions:

- What are your Take-Aways from today’s session?
- How has today’s session affected your philosophy of teaching?

“The important thing is to never stop questioning!”

Albert Einstein