The Art of Questioning

“To question well is to teach well. In the skillful use of the question more than anything else lies the fine art of teaching; for in it we have the guide to clear and vivid ideas, the quick spur to imagination, the stimulus to thought, the incentive to action.”

C. DeGarmo
If a question is important enough to ask, shouldn’t ALL students have the opportunity to answer it?
Frequency

- A greater number of questions tends to indicate greater teaching effectiveness (if questions aren’t all lower level).
- Planning is essential to asking effective questions at a variety of levels.
Equity
Eliminate bias by asking All students All questions. Here are some techniques to promote equity and improve the depth of understanding in questioning and allow the whole class to respond:

- Turn-To-Your-Neighbor
- Think-Pair-Share
- Think-Pair-Square
- Choral Response
- Value Line
- Shuffle the Deck (Random Call)
- Voting
- Ranking
- Corners
- Blackboard Share
- Slate/White Board Answers
Prompting

- What to do when students can’t respond?
  Try this sequence:
  - Original question
  - Alternate question (ask the same thing in a different way)
  - Open-ended question (I.e. descriptions or comparisons)
  - Alternative response (give students an “either/or” option)
Repetition Questions

- Revisit the important stuff!!
Wait-Time

After posing a question, wait AT LEAST 3 seconds before asking for a response. Here are two paradigms:

- **Traditional Questioning Paradigm**
  - Teacher questions (pause)
  - Call on student (pause)
  - Student responds or teacher intervenes (pause)

- **Cooperative Questioning Paradigm**
  - Teacher questions (pause)
  - ALL individuals think (pause)
  - ALL individuals respond (team members and teacher intervene) (pause)
  - Responses are shared with the class

- Go back to “Teacher Questions”
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Kinds of Questions

- Reflecting
- Open-ended
- Closed-ended
Reflecting

- **Sentence Prompts**
  - “So you’re thinking that…”
  - “Sounds like you’re concerned that…”
  - “You feel…because…”
  - “I’m hearing that…”
  - “Let me see if I understand what you are saying…”
Open-ended Questions

Allows other person to express what is on his/her mind, to tell you what he/she considers to be important

• Gives maximum latitude to speak freely
Closed-ended Questions

Limit the length of the response to a few words

• Call for a precise piece of information

• The short response focuses directly on a specific point
Textbooks and teachers tend to ask questions that require only literal comprehension (knowledge and comprehension). Here are two classification strategies for building and evaluating classroom questions:

- **Bloom’s Taxonomy (1956)**
  - Knowledge
  - Comprehension
  - Application
  - Analysis
  - Synthesis
  - Evaluation

- **Revised Bloom’s Taxonomy (2001)**
  - Remember
  - Understand
  - Apply
  - Analyze
  - Evaluate
  - Create
Knowledge/Remember Level

- At this level, we are simply remembering the facts about a topic we are studying.
- Example:
  - List the planets in order from smallest to largest.
- The student recalls or recognizes information.
Comprehension/Understand Level

- Here you should be able to show that you understand the main idea about the topic.
- Example:
  - Describe one of the planets in terms of its physical characteristics.
- The student changes information into a different symbolic form.
Application/Apply Level

- At this level, Bloom saw people being able to use the information they had learned in the study of the topic.
- Example:
  - Explain the difference between a star and a planet when viewing with the naked eye.
- The student solves a problem using the knowledge and appropriate generalizations.
Analyze Level

- At this level, you need to take apart the information or knowledge you have gained and look at the smaller elements that work together to make up the larger parts.

- Example:
  - Compare and contrast the nine planets in terms of: surface, temperature, distance from the sun, size, and mass.

- The student separates information into component parts.
Evaluation/Evaluate Level

- At this level, you are asked to give a judgment or opinion and be able to support your decision.

- Example:
  - Do you think the US government is justified in spending money on space exploration? Why or why not?

- The student makes qualitative and quantitative judgments according to set standards.
Synthesis/Create Level

- This level is creative. Here you will think about designing new things or using the art to express your ideas.

- Example:
  - Fantasize and describe a guided tour through one of the planets.

- The student solves a problem by putting information together that requires original, creative thinking.
GENERAL GUIDELINES

- Distribute questions so that all, including non-volunteers, are involved.
- Balance factual and thought-provoking questions.
- Ask both simple and exacting questions.
- Encourage lengthy responses and sustained answers.
- Stimulate critical thinking.
- If a student asks a question, don't answer it until you've asked the class.
- Personalize questions.
- Suggest partnership.
Levels of thinking skills

- Low level thinking
- High level thinking
Lower Level Thinking Skills

- KNOWLEDGE
- UNDERSTANDING
- APPLICATION
Higher Level Thinking Skill

- Evaluation
- Analysis
- Creation
Critical Thinking Wheel

- Students need to learn how to process information rather than merely memorize information.
FIVE BASIC TYPES OF QUESTIONS

- Factual
- Convergent
- Divergent
- Evaluative
- Combination
1. Factual

- Soliciting reasonably simple, straightforward answers based on obvious facts or awareness.
- The lowest level of cognitive or affective processes and answers are frequently either right or wrong.
Example

- What is the former name of Jakarta?
  Answer: Batavia

- Name the Shakespeare play about the Prince of Denmark.
  Answer: Hamlet
2. Convergent

- Answers to these types of questions are usually within a very finite range of acceptable accuracy.

- These may be at several different levels of cognition.
3. Divergent

- These questions allow students to explore different avenues and create many different variations and alternative answers or scenarios.
Example

- In the love relationship of Hamlet and Ophelia, what might have happened to their relationship and their lives if Hamlet not been so obsessed with the revenge of his father's death?
More example

- Like many authors throughout time, Shakespeare dwells partly on the pain of love in Hamlet. Why is painful love so often intertwined with good literature? What is its never ending appeal to readers?
4. Evaluative

- These types of questions usually require sophisticated levels of cognitive and/or emotional judgment.
More Examples

- a. What are the similarities and differences between the deaths of Ophelia compared to that of Juliet?
- b. What are the similarities and differences between Roman gladiatorial games and modern football?
5. Combinations

- These are questions that blend any combination of the above.
Some tips on questioning techniques to enhance active learning

- Ask Challenging Questions
- Ask Well-Crafted, Open-Ended Questions
- Ask Uncluttered Questions
- Learn to Wait
- Presentation
Students may want knowledge presented to them in nicely wrapped packages, and we may feel like we are rightly attending to their needs when we offer this. However, the best gift we can give our students is the ability to question, to discover, and to learn to learn.

- Howard Doughty
“Sometimes questions are more important than answers.”

~ Nancy Willard
(American poet & writer)
Thank You!

“That in all things God may be glorified”