Asking the Right Questions- Effective Use of the Socratic Method

SMHS Center for Faculty Excellence

Virtual Faculty Connection

January 25, 2021

THE SMHS
CENTER FOR FACULTY EXCELLENCE
THE GEORGE WASHINGTON UNIVERSITY

12 tips

1. Ask questions to scaffold learning
2. Understanding the roles of open and closed questions in learning
3. Use all levels of questioning
4. Ask questions as a model of clinical reasoning
5. Probe, don't 'prod' by creating psychological safety
6. Break away from Initiate-Respond-Evaluate (I-R-E) pattern
7. Allow learners to discuss in pairs before answering questions
8. Give learners think-time after asking a question
9. Know when to stop questioning
10. Listen to learner responses
11. Ask questions for a written response
12. Analyze the questions asked

Pylman S, Ward A. 12 tips for effective questioning in medical education. *Med Teach*. 2020;42(12):1330-1336. doi: 10.1080/0142159X.2020.1749583.

1. Ask questions to scaffold learning

- What do my learners already know about this topic?

- What do I want my learners to know about this topic when they leave today?

- What questions can I ask that will help learners think and fill in knowledge gaps?

- Tricks/tips:
  - Ask questions that help learners access what they do know and build from there with further questions as guides
  - Avoid questions that are merely engaging and stick to questions that lead toward the main learning objectives
  - Aim for questions that get at what's odd, counterintuitive, or easily misunderstood rather than what is predictable/mundane with relatively obvious answers

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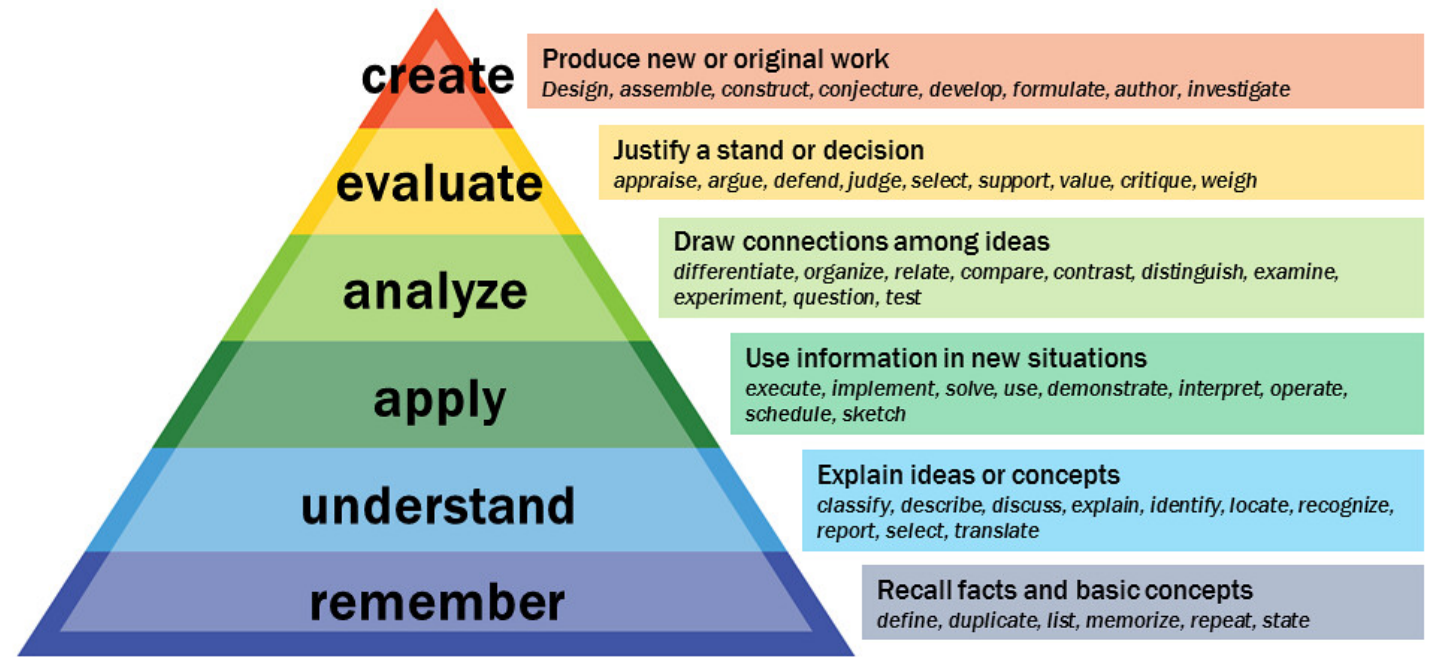
2. Understanding the roles of open and closed questions in learning

- Open-ended questions ask learners to:
  - Analyze
  - Synthesize
  - Evaluate
    - Make a choice and use evidence to explain their thinking
    - Answer a question that has no clear answer

- Closed-ended questions ask learners to:
  - Recall facts

- Use both types of questions in your teaching

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3. Use all levels of questioning

Bloom's Taxonomy as a questioning framework

4. Ask questions as a model of clinical reasoning

- Educators of health professionals must model professional behaviors and ways of thinking for learners

- Clinical reasoning – a unique pattern of thinking that is used when diagnosing and treating patients

- Clinical reasoning must be taught and practiced

- Asking learners specific questions after seeing a patient case, walks learners through the clinical reasoning thinking process
  - Educators can make their thinking explicit by thinking out aloud and then asking learner questions to engage them in the clinical reasoning process

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5. Probe, don't 'prod' by creating psychological safety

- Commit to using the term *probing* rather than *prodding* or *pimping*

- Prodding- can humiliate, cause discomfort, or malignantly illuminate knowledge gaps

- Recommendations for creating psychological safety:
  - Create an atmosphere of respect, let learners know you will probe and the purpose of the probing
  - Ask questions that are at an appropriate level for learners
  - Give sufficient time for answers by allowing silence or 'wait time'
  - Allow learners to say 'I don't know' or ask for help from others
  - Prompt learner to voice what they do know when they say don't
  - Use verbal and non-verbal communication to show support to learners while they are challenged
  - Do not overlook or ignore inadequate performance; correct with compassion (and privately if possible)

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6. Break away from Initiate-Respond-Evaluate (I-R-E) pattern

- **I**nitiate (educator)
  - "Sally, how do we treat hypertension in this patient?"

- **R**espond (learner)
  - "I would start by talking to the patient about some lifestyle changes"

- **E**valuate (educator)
  - "Good, that's right"

- Third-Turn Response examples (replaces E above)
  - "Can someone explain why that is a good option at the moment?"
  - "Would someone like to challenge that? Are there other things we should consider?"
  - "Under what circumstances might we consider pharmaceutical intervention?"

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7. Allow learners to discuss in pairs before answering questions

- Benefits:
  - Deepens understanding (even when the pair does not originally know the correct answer)
  - Discussion is a form of cooperative, active learning
  - Each person is accountable for thinking, learning, and adding to the collective learning of the class/team
  - Thinking out loud helps to identify misconceptions or gaps in knowledge and gives learners the opportunity to <u>teach information to another person</u>
    - Known to help knowledge retention and deeper understanding

- Characteristics of questions that are good for paired discussions:
  - Difficult concepts for which learners often have misconceptions
  - Main learning objectives that learners need to master
  - Issues that do not have a clear right or wrong answer

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8. Give learners think-time after asking a question

- When learning new concepts, learners need more time to think

- Offer your learners, 'Think-Time'
  - Wait at least 3 seconds after asking questions
  - Tell learners you are purposely giving think-time

- Benefits:
  - Longer learner responses
  - Increase in alternative responses
  - Responses are more complex (demonstrating a higher cognitive level)
  - More learner-initiated discourse
  - More learner-to-learner interactions
  - Decreased learner confusion
  - More confidence
  - Higher achievement

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9. Know when to stop questioning

- There will be times when learners are unable to answer questions posed, even when using scaffolding and allowing think time
  - Do not always assume lack of learner preparation
  - Do not always step in and answer the entire question

- When questions become unanswerable for learners, try the following:
  - Ask another learner to help answer
  - Ask learners to research it and report back at the next session
  - Step in and explain part of the answer
  - Step in and explain the entire answer
    - Especially if it necessary/advantageous to alleviate learner cognitive load

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10. Listen to learner responses

- Focus on learner responses for the purpose of determining future instruction

- Listen and pay attention for the following:
  - Did the learner understand the concept?
    - How do I know?
  - What level of understanding did the learner response reveal?
    - Surface level understanding vs. full understanding?
  - Was there a misconception?
    - Should I call on learners to challenge the response?
  - Was the question too difficult for the learner?
    - How do I break it down to better scaffold?
  - Based on the learner responses, should I go back (reteach) or move forward?
  - Was the learner able to justify their response (explain why)?
    - Make sure learners didn't give the right response for the wrong reasons.

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11. Ask questions for a written response

- Try the following techniques for written responses:
  - Quick writes
  - Exit slips
  - Digital conversations

- Use written questions as a formative assessment tool
  - To use to plan future instruction
  - Not to evaluate or grade

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12. Analyze the questions asked

- Review video or audio recordings of teaching sessions and analyze your questioning

- Ask peer to come into class or observe you teaching and have them help you analyze your questioning

- Ask the CFE for a peer review of your teaching to analyze your questioning

- Ask learners for feedback on your questioning

- Analyze for:
  - Bloom's Taxonomy- levels of questioning
  - Use of the I-R-E pattern
  - Probing vs prodding
  - Quality of learner responses
  - Use of think-time

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