


THE ART OF QUESTIONING



Outline of the workshop

- We will be looking at the:
 1. Mechanics of questioning
 2. Types of question
 3. Practice
- 

How not to do it

[https://www.youtube.com/watch?
v=uhiCFdWeQfA](https://www.youtube.com/watch?v=uhiCFdWeQfA)



How not to do it (2)

- What is he doing wrong?
- 

The importance of questioning

- Questioning is the most important tool you have for stimulating and exploring thinking.
- It is the best means of fostering intellectual rigour in the classroom.
- By modelling good questioning, you help develop the students' own questioning skills.

Prerequisites

- An atmosphere of inquiry in which questions are welcome, and students are not afraid of getting it wrong. They must know that error is their friend and that they can learn from it.
- The teaching of the subject as a discipline open to inquiry, not a closed book, only to be learned and regurgitated.

The mechanics (1): protocols for soliciting answers

- Open call-out
- Hands up (if this is the one you are using, insist.)
- Cold-call on individuals
- Random draw from a pack of file cards or popsicle sticks with class names on. Put them back into the pack after asking students, or they turn off.
- Think/pair/share
- A/B partners (but beware of superficiality).
- Quiz games such as team multiple choice or quiz baseball.
- Don't allow the keeners to dominate. Involve all.
- Beware the grey zones where your attention does not naturally fall.

The mechanics (2) framing and asking questions

- Plan your questions in advance.
- Start with simple questions. If a question bombs, dial back the complexity and try again.
- Tailor your question to the student's ability.
- Or use a leading question, which implies the answer.
- Don't accept refusals to respond. Say you will be back, and go back, to ask another question.
- If no one can answer and it's important, tell them to look it up.
- If a student is really reluctant to answer, give them the answer, then ask them again. Get a response.
- Allow plenty of wait time.



Handling answers

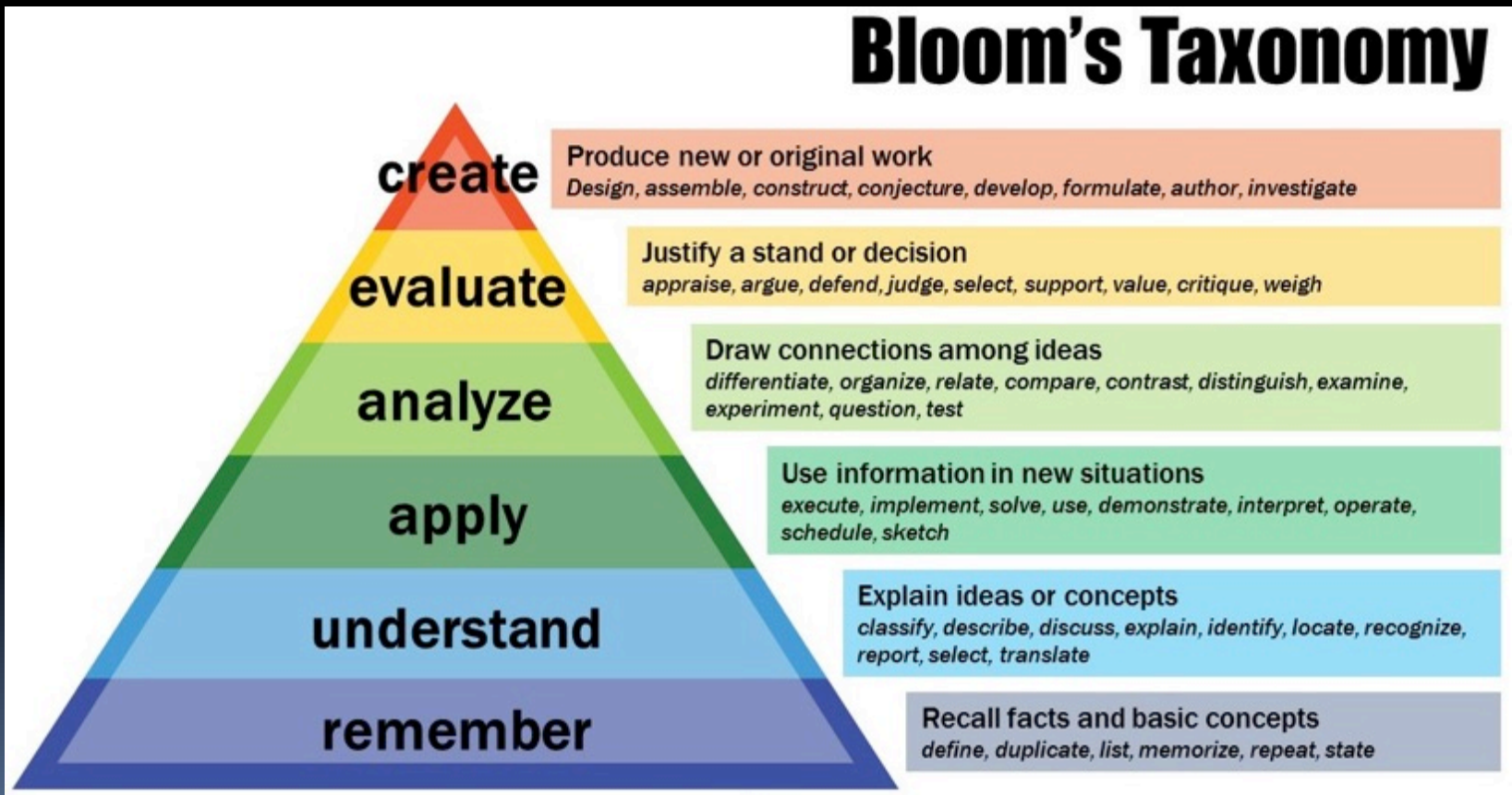
- Make sure answers are audible to the whole class. If not, either ask the student to repeat the answer louder, or repeat the answer yourself.
- If a student asks a question relevant to the lesson, repeat it for the whole class to hear before answering it.
- Use lines of questioning to probe more deeply into a student's thinking.
- Use positive body language, prompts and encouragement. No put-downs.

Types of question (1) - invalid

- Unanswerable
- Too broad, eg. “Any comments?”, “Anyone?”
- Multipart, eg. “When was *Tuck Everlasting* written, and what does it say about life?”
- Irrelevant: Every question should be designed to help students achieve the objective of the lesson. Avoid trivia for trivia’s sake.
- Discriminatory in tone or wording.
- Excessively personal
- “Faux” high-order questions which appear to demand reasoning but can be answered from memory. Eg. “If the atomic weight of titanium is 22, how many electrons are in its outer shell?”

Types of question (2) - Bloom

Bloom's Taxonomy



Drawbacks of Bloom's taxonomy

- It is frequently understood to be a hierarchy up which one has to progress from bottom to top. It is not. Even young students can address questions at every level.
- “Lower” levels sometimes involve higher ones. Eg. Application may involve evaluation.
- It is not comprehensive. There are other types of question worth asking. Hence -

An expanded taxonomy of questions

Expanded taxonomy

- Recall
- Literal comprehension
- Inferential comprehension; reading between the lines, understanding the unstated.
- Eg. *Slice of his neck.*

What is the cartoonist saying?



Erosion, by E.J.Pratt

Inference: what is the poet saying?

- It took the sea a thousand years,
 - A thousand years to trace
 - The granite features of this cliff,
 - In crag and scarp and base.
-
- It took the sea an hour one night,
 - An hour of storm to place
 - The sculpture of these granite seams
 - Upon a woman's face.

Expanded taxonomy (continued)

- Analysis, eg: “Compare and contrast racial segregation in the USA with the apartheid regime in South Africa.”
- Problem-solving/application, eg. “Carry out the following lab experiment to answer the question X.”
- Evaluative, eg. “How significant was Canada’s contribution to victory in WWI?”
- Moral/ethical, eg. “Is Sir Thomas More a man whom we should admire?”
- Empathetic, eg. “Consider the problems facing Harry Truman in deciding whether or not to drop the A-bomb.”

Expanded taxonomy continued some more

- Metacognitive, ie. Thinking about thinking.
- Synthesis, ie. Creating something new (at least to the student). Eg. “Assume that 2 years have passed since *Ivanhoe* ended. Write the story of what happened next.”
- Question-generating. A very important skill, too little taught. Eg. Consider the title of Steinbeck’s novel, *Of Mice and Men*. The protagonists are George and Lennie. What question is suggested by this title?

Kikkik's Choice. What questions come to mind?

- At the time, famine had forced the Inuit to roam far afield in search of food. As things grew truly desperate, Kikkik left her two eldest children and forged onward with just the two babies. One of the older children survived; the other froze to death. Kikkik was ultimately acquitted at her trial.

What questions suggest themselves?



Your turn. You are the teacher. One of your students is giving a presentation. As you listen, jot down questions to ask him. I will be the student.

- https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity?language=en