

TUTORIAL 15: “HOUSTON, WE HAVE A PROBLEM” — MACRO AND MICRO QUESTIONS

ICONS TO HELP YOU NAVIGATE THE COURSE HANDOUTS



Whole class
discussion



Teams/Groups
discussion



Take/make notes



Impromptu talk topic
(speak for 1 min)

Learning Objectives:

By the end of this Tutorial, you will be able to:

- Ask live questions that are truth-seeking, well-informed and probing
- Use Socratic questioning - understand how asking questions is a key to progressive learning
 - Macro questions to get the big picture
 - Micro questions – to get the details
- Form a “live” question for your Oxford Essay

1. LIVE QUESTIONS

Dead questions are so called because the questioner expresses a mind that is essentially ‘dead’ to critical thinking. These questions show a reluctance to think for oneself, a certain laziness or lack of initiative. A dead question is one that is self-serving, ill-informed and superficial, e.g. “Is this coming out in the exam?”, or “How do I get an A in the course?” A live question extends the learner’s understanding of the subject, and can even help experts reach new frontiers of knowledge. Newton, aged 19, had lists of questions on the nature of matter, place, time and motion that he categorized under 45 headings. Are these the questions that motivated him to find the answers that you now all know as the laws of gravity?



EXERCISE 1

WHAT'S THE UNDERLYING LIVE QUESTION?



CHARLES BABBAGE'S COUNTING MACHINE



HP 250 G1 Desktop PC



Asking live questions means being on the ball, being alert, being intelligent, being willing to listen, being aware of what sort of information you are listening to and what sort of decisions you have to make in the end. Asking live questions requires a system, and having a system requires you to know what sort of questions give rise to what sort of answers – factual and objective answers or opinion-based and subjective answers or answers that are a combination of fact and opinion about fact and which are therefore somewhat objective and also somewhat subjective. This concept is based on Paul and Elder’s postulation that there are three basic question types: **factual**, **preference** and **judgment**.



EXERCISE 2



Watch this video clip on the Apollo13 mission when they discovered they had a problem. There are four questions asked. What are these questions and which of the three categories do they fall under?

2. SOCRATIC QUESTIONING

Socratic dialogue still has a place in contemporary society – it is a series of questions and answers to explore a topic more thoroughly; deepening and broadening knowledge. It most often occurs in university classes, but as you see from the quote it can be applied to workplace situations too.

“On the art of asking the right questions: “many of the best managers I’ve seen have an uncanny ability to engage in Socratic dialogue that helps people reach their own conclusions about what can be done to improve a plan or project, which of course leads to much more ownership and learning.” *The Art of Asking Questions*, Ron Ashkenas in the *Harvard Business Review* blog 1:39 PM August 30, 2011

If you ask better questions, do you get better answers? Let’s leave that as a cliff hanger! For now, let’s also just point out that managers have said that they identify as up and coming those colleagues who ask good questions in meetings etc. A trainee lawyer in an international law firm was told in his appraisal in which out of 10 criteria he had already exceeded expectations in eight, that if he wanted to exceed expectations in the remaining two, he would need to step up in asking questions. Questions were what would propel his professional development – with no set syllabus, he would need to find out more about the finer or advance points of law from the

senior partners and the only way he would that was by asking them about the cases they were working on. As for the tasks he had been assigned, he was to ask how his small task fitted in with the bigger case and even to challenge what was being done if he could see a better way of doing the work. This is how initiative, creativity, intellectual curiosity are measured in real life. Not by an assessment or an exam.



Exercise 3


So what are the features of Socratic questioning aka Socratic Dialogue or Socratic Method?

Watch this video and take notes <http://www.youtube.com/watch?v=CPLu3qCbSU>

3. MACRO QUESTIONS

Barrett's comes in useful to unpack the topic – you have used his comprehension framework before to unpack Ennis, also the panel discussion topic. Now use it again to refine or focus the topic to find a live question for your essay.

BARRETT'S TAXONOMY AND YOUR LIVE QUESTION



Level 1 – What is the human problem in particular that interests you? Why are you interested in this topic? What is the IT solution you think is the most interesting or controversial?

Level 2 – What are some benefits of the solution? What are some controversies/what is the main controversy? Is the main impact socio-economic or political or in some other sphere?

Level 3 – What is the main impact/problem/concern you think should be addressed or you want to raise awareness on?

Level 4 – What is your analysis of the situation/context/controversy/problem/state of the art or technology/status quo?

Level 5 – What do you think will/should happen next? What if...? What then...?

4. MICRO QUESTIONS

These sorts of questions are used to understand the details of what you are reading or hearing or trying to understand more deeply. You would be demonstrating attention to detail and intellectual curiosity when you ask such questions.

ACADEMIC CONVERSATIONS- INTELLECTUAL CURIOSITY



- How you ask questions, can show what kind of critical thinker you are, e.g. do you show a disposition for:

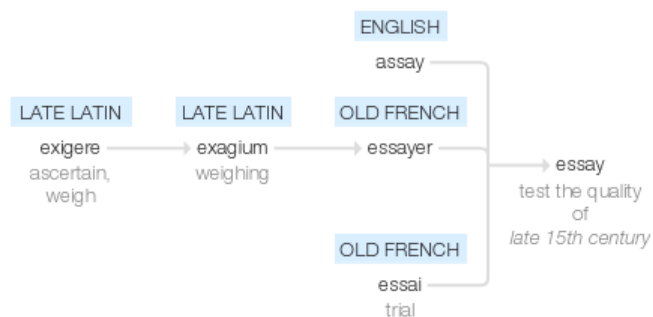
Clarity	Can you elaborate on your point about X?
Precision	Can you give us some details about how X works?
Accuracy	Have these findings been verified in some way?
Relevance	Could you tell us how this point X fits into the overall argument?
Deep thinking	Is this issue simple or complex? Does the answer cross domains of knowledge, e.g. science and ethics?
Broad mindedness	I have looked at the question from a moral point of view, but what about from an economic point of view?

5. OXFORD ESSAY QUESTION

A real essay is not your answer to a question set by a teacher. A real essay is your attempt to find out more about a topic, even find out the 'truth'.

essay

Origin



late 15th century (as a verb in the sense 'test the quality of'): alteration of *assay*, by association with Old French *essayer*, based on late Latin *exagium* 'weighing', from the base of *exigere* 'ascertain, weigh'; the noun (late 16th century) is from Old French *essai* 'trial'.

- To show critical thinking – know how to ask questions
- To show intellectual curiosity – ask questions
- To be innovative – question the status quo
- To expand knowledge – ask questions – clarifying, elaborating, probing, challenging, provoking
- To solve human problems with computer science – ask questions about... and here is where your essay or concept paper might fit in

Richard Dawkins on the Oxford Tutorial was ‘the making of me’ – it’s where he learned to think about his own ideas, hear him speak about what an Oxford Tutorial was all about

<https://www.youtube.com/watch?v=r8Th4WtKpDY>

Students and tutors cover certain common topics. However, what each student learns specifically depends on his/her interests. In the Oxford Tutorial, a student researches on something that interests him in a topic and presents an essay to his tutor. His tutor then questions him about his findings and reasoning, throwing light on all the dark spots that need to be improved upon as the student defends his position. In so doing, the student learns not only the basics of a topic but also deepens his knowledge at least in one aspect. In so doing with the help of the Socratic questions, the student will develop critical reading, thinking, writing and speaking skills.

Oxford Tutorial Discussion Behaviour

- Juggling the academic conversation balls in general
- Engagement with other POVs in particular
- Giving critical feedback
- Being open-minded to feedback, yet
- Being able to defend a position/point if necessary
- Referencing credible evidence and their sources
- Being sceptical/brave about evaluating claims or assertions that are not sufficiently backed up, or where explanation lacks clarity etc.
- Being or showing knowledge in topic
- Consistency of O+R+ E – opinion with reasoning and evidence
- Willingness to be part of a community of learners

OXFORD TUTORIAL DISCUSSION ROLES – WRITING CIRCLE

P1 A and O - Facilitate discussion about what the essay is focussing on and whether or not this aim has been met in these three important areas	Thesis + Introduction + Conclusion
P2 Ideas - Facilitate discussion about how the ideas have been developed, is there cogency e.g. do ideas link from one to another logically? Are there fallacies?	Line of reasoning (content)
P3 Glue Facilitate discussion about whether paragraphs are well signposted in themselves and how they link to each other	Line of reasoning (language)
P4 Content Facilitate discussion about source credibility, engagement and selection of evidence	Credibility of sources and evidence
P5 Devils Advocate Facilitate questioning, looking for counterarguments and refutations. Bonus – questions that help essay writer see bigger picture or future implication	POVs and quality of refutations

EXERCISE 4 AND HOMEWORK

- Reflect on your live question for the Oxford Essay. Use Barrett's taxonomy to help you explore your panel discussion topic and discover something you would be keen to find out more about.



COURSE NOTES

- Questions are central to critical thinking.
- Be brave about asking questions that will promote or display good thinking skills.
- Ask "live questions" – questions that are truth seeking, well-informed and probing as these build up knowledge and understanding.
- Truth seeking questions focus on clarity, precision, accuracy. Being well-informed entails being broad minded and to probe is to seek deeper thought, to make sure that answers to questions are comprehensive enough.
- How you ask questions shows your critical thinking dispositions.
- Develop a system for asking questions of texts or authors of texts.
- Live questions – challenge status quo=>change and innovation/originality
- Ennis says a critical thinker should ask thought provoking questions – can you remember any such questions from the panel discussion?
- Can you think of at least one provoking question to ask in your essay?

FURTHER READING

David Palfreyman (Editor) (2008) The Oxford Tutorial: Thanks, you taught me how to think. The Oxford Centre for Higher Education Policy Studies (OXCHEPS); 2nd edition