Teaching and Learning Unit
Tutor Training Guide Series

Tutorial Questioning Technique

For Tutors in the Faculty of Economics and Commerce

THE UNIVERSITY OF MELBOURNE

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Tutor Training Guide Series

This guide has been written for people who are new to tutoring in the Faculty of Economics and Commerce at the University of Melbourne. It is one of a number of teaching and related guides provided by the Teaching and Learning Unit (TLU).

The guide is intended to be a useful source of ideas and advice for good tutoring practice, based on sound educational principles and research.

For more information, advice and resources available to tutors, visit the TLU webpage http://tlu.ecom.unimelb.edu.au/ or call the TLU directly on (03) 8344 4464.

Other guides in the series include:

- How to Start the First Tutorial
- How to Structure and Teach a Tutorial
- Encouraging Student Participation in Tutorials
- Tutor Roles and Responsibilities
- Teaching International Students in Tutorials
- Assessment and Marking
- Evaluating Your Tutoring
- Activities to Use in Tutorials

Tutorial Questioning Technique

A key component in the success of discussions in your tutorials lies in your ability as a tutor to ask and answer questions effectively. The questions you ask, the way you ask them, the people of whom you ask them, and the times you ask them, may open up or inhibit discussion. It is therefore a good idea to familiarise yourself with various questioning strategies and techniques.

Good questions generate good discussion. Questioning is a key facilitation skill for small group leaders. Lively and focussed discussions are more likely to take place if your questions are well planned and aligned with the purposes of the class.

1. Why is asking questions important?

To learn effectively students need to learn actively, and one way to encourage active learning is to ask questions. Good questioning skills are one of the most important and also the most difficult teaching techniques to develop. Effective questioning will enable you to:

- Gain an insight into your students' level of understanding.
- Develop the communication skills of your students.
- Extend students' analytical skills.
- Develop critical thinking skills.
- Develop a relationship with your students.
- Provide recognition and reward to students.
- Promote an environment in which students learn actively.

While questioning is one of the best ways to get discussion going, the most common error in questioning is not allowing students enough time to think. However, there are a number of ways that you can improve your questioning technique. The most important is that you analyse the types of questions that you ask and think carefully about your own teaching. It can be helpful to have a critical friend, colleague or someone from the TLU observe your teaching and then provide constructive feedback, as it is easy to get absorbed in class and not really notice what you are doing.

You need to develop an environment in which students feel comfortable with questions and expect to be asked them. Asking "why" or "how" questions enables students to figure things out for themselves and so learn better. Asking good questions also puts the responsibility for learning back with the students, enhancing their autonomy and facilitating participation.

2. Planning ahead

Include the preparation of questions in your planning. Plan the questions for each section of the class well in advance. Think about the structure of the question and its purpose. Is the aim of the question to:

- Uncover misunderstandings?
- Encourage further questions?
- Enable students to think about a particular issue?
- Display a right answer?

Think also about how you will word the question. Consider whether it is a question you will ask the whole class, pairs of students or named individuals.

3. Types of questions

Educationists have identified two types of questions: closed/lower-order and open-ended/higher-order. Dawson (1998:28) notes that "lower-order questions ask students to recall, define and describe; that is, to provide facts. Higher-order questions require them to perform interpretive rather than descriptive tasks. They may be asked to analyse, compare, evaluate or synthesise; to rank, hypothesise, design or predict. Good questioning leans towards the open-ended and higher-order forms as much as possible" .

Open questions often begin with the words "what", "when", "where", "why" or "how". They can ask for an explanation, an elaboration, an example. They can ask to explore strengths and weaknesses or possible problems. They can consider "what if…". Closed questions usually require a single word or yes/no answer.

The following list offers some examples of different types of questioning, from ones simply requiring answers to those demanding more thought. The list has been adapted from Davis (1993) and McKeachie (1999).

Factual or exploratory	Probe facts and basic knowledge and allow little opportunity for dissent e.g. "what" questions or definitions.
Challenge	Examine assumptions, conclusions and interpretations.
Relational or comparative	Ask for comparisons of themes, ideas or issues.
Diagnostic	Probe motives or causes.
Action	Call for a conclusion or action.
Connective or causal effect	Ask for causal relationships between ideas, actions or events.
Extension	Expand the discussion.
Hypothetical or problem-based	Pose a change in the facts or issues.
Priority or evaluative	Seek to identify the most important issue, or make a judgement on the relative value of two points being compared.
Summary	Elicit syntheses.

- Ask open-ended questions. These "what", "when", "where", "why" and "how" questions can bring a range of responses which might not necessarily have been anticipated by yourself.
- Don't rely solely on questions with yes/no or single word answers.
- Ask conceptual as well as factual questions.
- Ask probing questions: "why are we doing it this way?", "what would happen if...?", "what does this mean?", "what are some alternatives to this?", "what are we going to do next?", and "what are some of the problems with this?", "what kind of evidence do you need to support that argument?".
- Ask broad questions that encourage students to participate: "what do you think about this?", "how do you think we might go about this?".
- Ask them to think about why things are done in a particular way.
- A question like "how does the idea that ____ apply to _____?" is much more likely to stimulate discussion than "what is the answer to question 16?".
- Ask questions that check students' understanding by requiring them to explain, recap or summarise.
- Use interpretive questions (connective, cause and effect or comparative questions) and evaluative or critical questions (requiring a judgement to be made).
- Ask questions that identify what students know and how much preparation they have done so that they know you take an interest in their learning.

Examples of levels of questioning

Questions can be asked at a number of levels and each is suitable for a different stage of learning.

- Definitional: definitions, concepts, principles, formulas, elicited by questions such as "what is the formula for…?".
- Comprehension: elicited by questions such as "what does…mean?", "explain…", "give an example of …".
- Application: using information in a new context to solve a problem or answer a question. It is elicited by questions such as "how does the law of supply and demand explain the increase in the price of … in this situation?".
- Analysis: breaking something into its constituent parts and explaining the relationship. It is encouraged by questions such as "what factors have contributed to the falling Australian dollar?".
- Synthesis: putting parts together to form a new pattern, e.g. "how are long- and short-term consumer loan interest rates related to the prime rate?".
- Evaluation: uses a set of specified criteria to arrive at a reasoned judgement. An example of this is "how successful will an income tax cut be in controlling inflation and decreasing unemployment?".

4. Questioning strategies

Physical setting

- It is much easier to ask and answer questions if students can hear and see each other and you. If you can, arrange the chairs into a circle or half circle. Alternatively, arrange the furniture into small groups so students can see each other.
- In a large room. move about the space, and use a roving microphone. If you are stuck up the front of the room it is much more difficult to ask questions that will actually get a response.

Listening skills

Good questioning technique is as much about listening as it is about speaking.

- Listen carefully to what the student is saying. Do not interrupt, even if a student is heading towards an incorrect answer. Interrupting does not create an atmosphere that encourages participation.
- Ask the student for clarification if you do not understand.
- Actually listen as the student is responding. Sometimes tutors are confident that they know the answers themselves so they are not really interested in what students have to say.
- Show that you are listening by maintaining eye contact and nodding.

Wait-time

One factor that can have a powerful effect on student participation is the amount of time a tutor pauses between asking a question and doing something else (e.g. calling on a student or reworking the question). Research on classroom questioning and information processing indicates that students need at least three seconds to comprehend a question, consider the available information, formulate an answer, and begin to respond. In contrast, the same research established that on the average a classroom teacher allows less than one second of wait-time.

- Ask a question and then wait just slightly longer than feels comfortable before moving on to another student or giving a prompt.
- Waiting increases the complexity of the answer, the number of unsolicited responses and the number of questions asked by students.
- Waiting decreases the number of students who fail to respond when called upon.

Handling student responses

An important aspect of classroom interaction is the manner in which you handle student responses. When you ask a question, students can either respond, ask a question or give no response. If the student responds or asks

a question, you can use one of the following recommended questioning strategies: reinforce, probe, refocus or redirect. If the student does not respond you can use either a rephrase or redirecting strategy.

- Positive reinforcement. Praise students for their responses and remember to smile and nod.
- Probe to gain an extended response.
- Redirect. When a student responds to a question or asks a question, you can ask another student to respond. One purpose of this is to enable more students to participate and remove reliance on you as the tutor. This strategy can also be used to allow a student to correct another student's incorrect response.

Encouraging participation

- Speak in a friendly tone of voice.
- Make sure that the question is at a level of abstraction that is suitable for your class.
- Use student names so that you invite them to participate. Ask the question first and then call the student's name to avoid the rest of the class tuning out.
- Avoid using a pattern when asking questions (i.e. the order of seating or the list of names on the attendance record) as students will only listen when it is close to their turn to answer.
- Avoid repeating student responses. If you repeat what students have said they will listen to you rather to other students.
- Aim to ask questions of all students, not just the confident students or those sitting up the front of the class.
- Give students an opportunity to ask questions. Do not use "any questions?" as your only form of feedback from students. Sometimes students are so confused they cannot even formulate a question. In addition, many students will not participate because they do not want to make mistakes in front of their peers.
- Break questions into steps: "what are we going to do first?", "what do we do next?". If a student struggles with an answer, break the question into simpler parts or give them suggestions rather than just giving up on them.
- Ask a question and allow students time to jot down or discuss the answers.
- Be prepared to investigate alternatives proposed by students. If they are wrong, explore why and how they are wrong. Be interested in divergent views.
- Avoid display questions that give the message: "I know something that you don't know and you'll look stupid if you don't guess right".

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A number of other sources were used in the development of the TLU Tutor Training Guide series. Significant elements have been developed with the assistance of the *Department of History Tutors' Guide* and John Fernald's paper *Taking Economics Tutorials* from Harvard University.

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Further reading

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Resources, advice and support for tutors

The Teaching and Learning Unit (TLU) provides a range of resources designed specifically for tutors in the Faculty of Economics and Commerce. Go to: http://tlu.ecom.unimelb.edu.au/tutors/ to see what we offer.

The Centre for the Study of Higher Education (CSHE) also has a useful guide called ***Tutoring and Demonstrating at the University of Melbourne*** - http://www.cshe.unimelb.edu.au/bookpages/contents.html.

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Teaching and Learning Unit
Faculty of Economics and Commerce
Level 2, Babel Building
Parkville 3010

Phone: (03) 8344 5727
Fax: (03) 8344 3647
Web: http://tlu.ecom.unimelb.edu.au/

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