

**Effective Lecturing:**  
**A guide for sessional staff**  
**at Swinburne University of Technology**

**Marcia Devlin**  
**Swinburne University of Technology**

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*“Lecturers are the lifeblood of universities, without whom research would remain locked away in rarely read papers and lab results, and students would be unenlightened”*

Auriol Stevens, Editor, the Times Higher Education Supplement, cited in Race, 2001.

This guide has been written for people who are new to sessional teaching at Swinburne University of Technology. This guide is one of a number of teaching and related guides provided by the University for those who teach in the higher education division (please see the ‘Sessional Teaching at Swinburne’ site in Blackboard). The guide is intended to be a useful source of ideas and advice for good lecturing practice, based on sound educational principles and research.

## **1. What is effective lecturing?**

Lectures are at their best when they stimulate students to become active learners in their own right. Good lectures are well organised and presented clearly and enthusiastically with variation and student involvement. There is, however, no single formula for giving effective lectures, and there is no single ‘right way’ to give lectures that are high quality learning experiences for students. Having said that, there are some critical elements of lecturing that apply in any discipline context and that, when attended to, will increase teaching and learning effectiveness. Ultimately, the criterion for judging effectiveness is not performance but outcome; and the outcome that counts in higher education is the quality of the student learning that occurs.

## **2. A 4-point plan for effective lecturing**

### **A 4-point plan for effective lecturing**

- 1. Have clear purpose(s) in mind**
- 2. Plan thoroughly**
- 3. Manage problems strategically**
- 4. Reflect, evaluate and renew**

## 2.1 Have clear purpose(s) in mind

The first step in the 4-point plan for effective lecturing is to have clear purpose(s) in mind. It may be tempting to think of lectures solely as efficient mechanisms for transmitting information. While they may provide such efficiencies, unless the ‘transmission’ is accompanied by some ‘reception’ on the part of the students (beyond furious notetaking), lectures are likely to have limited effectiveness in facilitating student learning. That is, they may be *time efficient* but they may simultaneously be an *ineffective use of time*. There is a higher risk of student passivity when students are ‘talked at’ by a lecturer aiming to transmit as much information as possible in the given time. The ultimate purpose of a lecture is (or should be) to facilitate student engagement and active learning.

Ideally, lectures provide valuable opportunities for:

- activating students' prior knowledge about a subject or topic;
- facilitating student understanding of the lecture material by careful explanation related to the experiences students bring with them;
- setting a framework for dealing with material from texts, small group discussions and practical work;
- modelling ways of thinking relevant to the discipline;
- demonstrating procedures, where applicable;
- outlining problem-solving methods and outcomes, where applicable; and
- motivating students to want to know things they otherwise might not have explored.

The content, direction and outcomes of lectures are determined by their purposes. It is for this reason that the purposes of a lecture be clear to a lecturer before detailed planning begins. Start by asking yourself, for each lecture, ‘What is the purpose of this lecture?’ and specifically, ‘What do I want the students to have gained by the end of this lecture?’.

## 2.2 Plan thoroughly

The second step in the 4-point plan for effective lecturing is to plan thoroughly. Once the purposes are determined, careful and thorough planning will ensure an effective lecture. Ideas and suggestions for seven specific areas for planning follow. You will need to plan:

- the introduction;
- the content;
- the order and structure;
- examples;
- student and activities and ‘breathers’;
- stage directions for yourself; and
- the summary.

### **2.2.1 Plan the introduction**

The introduction must communicate clearly to the students the goals and objectives of the lecture. An indication that student engagement and activity is expected should be given (and, later, opportunities for such student engagement must also be planned – see section 2.2.5). Ground rules should be introduced or reviewed, as appropriate. In preparing the introduction to a lecture, focus on:

- stimulating the interest of the students to gain their attention,
- establishing a relationship with the group, and
- outlining the content and structure of the lecture.

### **2.2.2 Plan the content**

The amount of content is difficult to judge, especially for those new to lecturing. Keep in mind the adage, “Cover less to uncover more”. The less you ‘cover’, the more students are likely to learn! With opportunities for student activity and questions added, running out of material is very unlikely. However, with less experience in lecturing, it might be useful initially to have ‘supplementary’ material prepared.

Most students can only take on board three or four main points or concepts in fifty minutes, regardless of the subject being taught (Lowman, 1988). One of the most common mistake new lecturers make is to include too much material. This causes them to rush and deliver the material poorly. Try to focus on three to four key concepts, with illustrative examples, rather than on covering (all of) the ground. Establish a framework for student understanding of material and, where appropriate, sacrifice detail.

### **2.2.3 Plan the order and structure**

Will the order be logical – from simple to complex? Will the lecture start with a case study or example, which serves as an illustration for the principles to be taught? Will principles be discussed first and examples given at the end? Will examples be interspersed? Where will student activities come in the order?

Students sometimes find it difficult to discriminate between central issues, examples and asides in lectures. It is important to make explicit the shifts in levels of explanation in lectures. Providing structural cues to students improves ratings of clarity and the quality of note-taking (Brown and Atkins, 1988). The standard advice for oral presentations of most kinds is, ‘Tell them what you are going to tell them. Then tell them. Then tell them what you have told them’. This advice is good basic advice for structuring a lecture.

Further, you need to indicate to students when you are:

- outlining the direction of the lecture

*"Today I want to examine four aspects of ...";*

- beginning and ending a topic

*"That completes the section on ... Let's look now at ...";*

- emphasising key points

*"Overall, the basic principle to be remembered here is ..."* and

- linking the sections of the lecture and/or linking to students' previous knowledge

*"Remember how ..."/ "Many of you will be familiar with..."*.

#### **2.2.4 Plan examples**

Not only will examples and illustrations break up a single presentation mode, they are a powerful method of illustrating concepts and principles. Plan examples to which students can relate and update these as often as possible. Plan to ask students for examples of concepts (and have some prepared in case of student reluctance or non-response).

#### **2.2.5 Plan student activities and 'breathers'**

In order to allow students time to stop and think about material, plan short, frequent 'thinking pauses' – "I'm just going to stop for a moment and let you think about that". Such 'breathers' are usefully followed up with questions to the students. Questions need to be carefully constructed so that they assist rather than confuse student understanding.

Plan how you might, for example:

- incorporate a group problem solving exercise;
- ask students to participate in a group brainstorm;
- ask students to read over their notes from the lecture so far and offer a precis of one point covered;
- ask for an example from students' lives of the concept under consideration;
- use an excerpt from a video or an audio tape and seek student responses to it.

#### **2.2.6 Plan 'stage directions'**

Many academics new to lecturing find it helpful to include 'stage directions' among their lecture notes or plan. These are notes down one side of the page that include suggestions to oneself like:

- "go slowly here" for particularly difficult concepts;
- "ask for questions here" to remind oneself to include student 'breathers'; and
- "delete if running out of time" just in case that happens.

#### **2.2.7 Plan the summary**

Every lecture should have a summary that contains the three to four main points of the lecture. The summary is more important than new content that may have had to be

dropped if time runs out. The summary offers students an opportunity to check their understanding and to fill in gaps they may have in their notes or thinking. While lecturers may not think summaries are necessary, this may be because of their familiarity with the material in the lecture. On the other hand, many students have just been introduced to the material for the first time and appreciate the opportunity to have it repeated concisely.

A clear, well-rounded ending leaves students in a positive frame of mind about the lecture and the material. Ideally, it should both let them know what they have learned in the lecture and stimulate them to want to know more.

### 2.3 Manage problems strategically

The third step in the 4-point plan for effective lecturing is to strategically manage any challenges or problems that may arise in lectures. Most new lecturers and many experienced ones will be faced with problems related to lectures from time to time. Some of the most common are outlined in the table below along with suggested strategies to manage each. The table is divided into four sections: **student learning**; **student management**; **teaching** and **technical** issues.

**Table 1: Lecture trouble-shooting guide**

| Issue  | 'On the spot' strategy   | Other strategies   |
|--|--|--|
| <b>Student learning:</b>   |  |  |
| <b>Students seem passive or unengaged</b>  | <ul style="list-style-type: none"> <li>• Ask students to complete a quick quiz on the OHT</li> <li>• Ask students to share their notes so far in the lecture with their neighbour</li> <li>• Ask a question to the whole group</li> <li>• Take a 'roving microphone' out into the student body and ask questions</li> <li>• Ask students for their questions/comments</li> </ul> | <ul style="list-style-type: none"> <li>• Plan regular activities for students in lectures</li> </ul>   |
| <b>Student reveals personal problem at the beginning/end of a lecture</b>        | <ul style="list-style-type: none"> <li>• Refer to University counselling/student support service as appropriate</li> </ul>   | <ul style="list-style-type: none"> <li>• Have material on student services available at each lecture</li> </ul>  |
| <b>Student reveals a study related problem at the beginning/end of a lecture</b> | <ul style="list-style-type: none"> <li>• If the problem is likely to be shared – for example, confusion about assessment requirements – address with the whole group during that or the next lecture.</li> <li>• Refer individual students to academic/language support service as appropriate</li> </ul>  | <ul style="list-style-type: none"> <li>• Pre-empt this by promoting language and academic support to all students early in the semester. For further information, phone 9214 5583 (international) or 9214 8634 (local students)</li> </ul> |

| Issue  | 'On the spot' strategy   | Other strategies   |
|--|--|--|
| <p><b>A large number of students seek answers to individual specific questions at the end of lectures</b></p>                      | <ul style="list-style-type: none"> <li>• Set up a regular question and answer session before or after lectures to deal with such questions</li> <li>• Ask students to make appointments to see you individually</li> <li>• Make a time to see a group of students</li> <li>• Refer students to tutors, as appropriate</li> </ul> | <ul style="list-style-type: none"> <li>• Make use of Blackboard to provide answers to FAQs.</li> <li>• Seek advice from subject/course coordinator on student management policy</li> </ul>                                   |
| <p><b>There is a 'bimodal distribution' within the group - students with very strong and very weak backgrounds in the area</b></p> | <ul style="list-style-type: none"> <li>• Monitor student non-verbal and verbal feedback while lecturing and respond, where necessary, to review material and/or point to additional resources</li> </ul>   | <ul style="list-style-type: none"> <li>• Communicate to the whole class that there are students with differing backgrounds in the class and offer extension resources/ activities for those who want or need them</li> </ul> |
| <p><b>Student management:</b></p>  |  |  |
| <p><b>'Crowd control' is needed</b></p>  | <ul style="list-style-type: none"> <li>• Stop the lecture until students are quiet/ behave appropriately</li> <li>• Ask student(s) to stop disrupting their fellow students</li> </ul>   | <ul style="list-style-type: none"> <li>• Make mature, responsible behaviour and paying attention two of the initial 'ground rules' at the start of semester</li> </ul>   |
| <p><b>Mobile phone rings</b></p>   | <ul style="list-style-type: none"> <li>• Stop the lecture and calmly and politely ask <i>all</i> students to turn their phones off.</li> </ul>   | <ul style="list-style-type: none"> <li>• Make turning phones off a 'ground rule'</li> </ul>  |
| <p><b>Your teaching:</b></p>   |  |  |
| <p><b>The lecture time is about to run out and you are not finished the material you set out to cover</b></p>                      | <ul style="list-style-type: none"> <li>• Skip the last couple of points and go straight to a summary to consolidate the key concepts and principles you are aiming to get across.</li> <li>• Ensure that you make links to the next lecture</li> </ul>   | <ul style="list-style-type: none"> <li>• In future, earmark an expendable section of the lecture with a 'stage direction' or reminder note such as, "use this only if time".</li> </ul>                                      |

| Issue  | 'On the spot' strategy  | Other strategies   |
|--|---|--|
| <b>Technical:</b>  |   |  |
| <b>Overhead projector bulb blows /projector doesn't work</b> | <ul style="list-style-type: none"> <li>• Use the whiteboard instead</li> <li>• Borrow an OHP from a nearby room</li> <li>• Call technical assistance</li> </ul> | <ul style="list-style-type: none"> <li>• Arrive early and check equipment</li> <li>• Carry a spare bulb</li> <li>• Carry the phone number for technical assistance</li> <li>• Carry a whiteboard marker</li> </ul> |
| <b>PowerPoint won't work</b>                                 | <ul style="list-style-type: none"> <li>• Use the whiteboard instead</li> <li>• Use the OHT instead</li> </ul>   | <ul style="list-style-type: none"> <li>• Bring 'back up' overhead transparencies</li> <li>• Ask students to follow notes provided previously on the web</li> <li>• Ask students to take notes</li> </ul>           |

## 2.4 Reflect, evaluate and renew

The final suggestion in the 4-point plan for effective lecturing is to be reflective and to act on your reflections. A key characteristic of effective lecturers is their ability and willingness to continually evaluate how effectively their teaching is enabling student learning and to make adjustments where necessary. There are many methods of gathering data on which to reflect. One of the most valuable for new lecturers is self-reflection. Using a checklist such as the one in the next section of this guide is one way to reflect on one's lecturing. Equally, mentally reviewing a selection of lectures, listening to an audio tape of key lectures and/or viewing a video tape of a single lecture can be powerful means through which to review one's lecturing. It is vital, in any such reflection, to keep the ultimate question central in one's mind – 'How does my lecturing affect student learning?'

### 3. Self-assessment checklist

The checklist below is based on one by Gibbs, Habeshaw and Habeshaw (1988). It is best used as a basis for developing your own, individualised checklist. The idea is to use it periodically over the semester to monitor your lecturing.

| How well did I...                          | Very well | Well | Neither | Poorly | Very poorly | N/A |
|--|-----------|------|---------|--------|-------------|-----|
| make the objectives of the lecture clear   |           |      |         |        |             |     |
| provide an overview of the lecture         |           |      |         |        |             |     |
| link the lecture to previous lectures      |           |      |         |        |             |     |
| provide 'the big picture' for students     |           |      |         |        |             |     |
| make the lecture interactive               |           |      |         |        |             |     |
| encourage active learning                  |           |      |         |        |             |     |
| encourage students to ask questions        |           |      |         |        |             |     |
| maintain an appropriate pace               |           |      |         |        |             |     |
| balance activity with content              |           |      |         |        |             |     |
| ask questions and manage student responses |           |      |         |        |             |     |
| maintain student interest                  |           |      |         |        |             |     |
| check that students were understanding     |           |      |         |        |             |     |
| incorporate feedback from students         |           |      |         |        |             |     |
| emphasise the key points                   |           |      |         |        |             |     |

Area/strategy I could work on for next lecture (short term goal):

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Area(s) I could work on for next semester (longer term goal(s)):

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## 4. Frequently Asked Questions

- **How much material should I include in lectures?**

The short answer is, 'Less is more'. Three-to-four key concepts with several examples of each and opportunities for students to test their understanding of each will be ample 'material'.

- **How do I engage the students?**

Using examples and illustrations that are meaningful to students – remember as you get older, they get younger! – will help engage their interest and understanding. Present day examples are often the best bet. And as often as possible, demonstrate your respect for students, for their learning and for the background knowledge they bring to learning.

- **Which multimedia and audiovisual aids should I use?**

The effectiveness of multimedia and/or audiovisual aids depends on the quality of the aids as well as on why and how they are used. The point of introducing slides, video or other media is not to entertain or merely to break up a verbal presentation, but to enhance learning. They should focus attention on aspects of the material, improve the clarity of explanation, and provide strong visual reinforcement of concepts. It is not enough to show a diagram or video and assume that the meaning is self-evident. Students should be directed to look for particular things relevant to the topic. Posing questions before the use of such aids and providing an opportunity for student response immediately after their use can be most effective.

- **How do I know the students understand the lecture?**

When lecturing, as well as seeking feedback as suggested earlier, it is helpful to be guided by the living audience. The best planned lecture can go awry if you have made erroneous assumptions about student backgrounds or if a concept is more complex for students than you imagined it would be. Keep your eyes on the audience. Pause occasionally to informally assess the impact you are making. Ask questions: "Can you see that clearly?" Watch for signs of confusion and puzzlement and respond to them directly: "I can see some people are puzzled by that. Let me just emphasise the main point...". Acknowledge that the material may be difficult and ask students to direct you to the most confusing parts so that you can re-explain them.

- **How can I get feedback on the quality of my lectures?**

Seeking feedback from students on their learning is one of the most powerful and efficient methods available to lecturers to guide their teaching. Ideally, such feedback should occur early in and throughout a semester and be used to shape teaching towards learners' preferences and needs. There are numerous methods of obtaining useful feedback from students in relation to lectures, including

- The ‘One minute paper’. At the end of a lecture, explain to students that you would like some feedback on your teaching and their learning. Invite students to anonymously jot down the three main points of the lecture as they understand them and leave this for collection. Even a cursory skim of these responses will give a lecturer some indication of the general level of understanding and of any areas of major confusion among students. These can then be commented on and/or addressed in the following lecture.
- The ‘What are your questions?’ technique. The lecturer stops with 5-10 minutes of lecture time remaining and asks students to read over their lecture notes, reflect on the lecture for a minute and then either individually, or in ‘huddles’ of 2-3 students, ask whatever questions they have about the lecture. This method indicates to students that you expect them to have questions and you are serious about these being asked and answered.

It is best to then use this brief, specific feedback throughout the semester to make incremental changes and improvements to your lecturing as necessary. Listening to your lectures on audiotape or watching a videotape of yourself teaching are challenging but useful options. You might also consider soliciting the help of a ‘critical friend’, preferably a colleague whom you judge to be a very good lecturer, to watch you lecture and provide critical and constructive feedback. See the guide ‘Providing Peer Feedback on Teaching’ for guidelines.

Finally, you can ask the Subject Convenor for access to the formal feedback gathered from students through the formal ‘Student Feedback on Subjects’ survey and process. Although this comes at the end of the semester and therefore cannot be used to improve your lecturing for the group of students from whom the feedback has come, you are likely to find it useful for future lecturing.

### **A final word**

Research into university student learning consistently shows that students respond to, engage with and value enthusiasm in their lecturers. The lecturers who have the deepest and most lasting impact on students and graduates are those who are passionate about their subject, about teaching and about student learning. From the student point of view, lecturers certainly have the potential to be “...the lifeblood of universities...” (Stevens, in Race, 2001).

## References and Further Reading

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