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In at the deep end – starting to teach in higher education

By Phil Race, Emeritus Professor, Leeds Metropolitan University

leeds metropolitan university

Getting your act together

One way or another, many colleagues start their teaching careers in higher education by getting 'thrown in at the deep end'. For many, within weeks or days of taking up their posts, there are lectures to be given, or tutorials to run, or seminars to lead, or marking of students' work to be done. Sometimes they face one or more of these prospects without having had any opportunity to learn how to tackle such challenges. Relevant staff development opportunities may indeed exist, but not always in time for those critical first experiences of teaching or assessing.

My aim in this booklet is to help you to cope well with those first few critical elements of your work in teaching in higher education. I hope, however, that this booklet will then continue to be helpful as you venture further into your teaching.

Intended learning outcomes

When you've used the ideas and suggestions in this booklet, you should be better able to:

1. Feel more confident and relaxed about starting to teach in higher education.
2. Prepare for and give your first lectures effectively and successfully.
3. Prepare for, and conduct successfully, your first tutorials and seminars.
4. Undertake your first elements of marking systematically, fairly and efficiently.
5. Give useful feedback to your students, to help them learn successfully.
6. Continue to develop your teaching and assessing practices systematically and professionally.

"I know my stuff – isn't that enough?"

Staff are appointed on the basis of their expertise and experience in the subject matter of their particular disciplines. Usually, even staff new to teaching in higher education have already had at least some experience of working with students, for example alongside researching or studying for higher degrees. However, when teaching first becomes a significant part of one's career, it can seem rather daunting a prospect either to step up onto the podium in a large lecture theatre, or take home a big pile of students' work to mark.

Most of the people around you may seem to have been teaching for ever, and glide effortlessly (it appears) through the processes of preparing lectures, planning tutorials and seminars, and assessing students' work. But all of them are likely to remember that knowing one's stuff was only a relatively small part of becoming able to help students to learn one's stuff!

Even more scary, the stuff you know backwards is quite unlikely to be at the heart of the material you need to be able to teach. It is very likely that at least some of the syllabus content you need to teach will be new even to you, and you may be surprised at how long it can take to put together (for example) a lecture on a topic you've never studied directly before.

Who can help me?

More often than not, you'll find someone who will be a real help. You may be set up with a mentor – an experienced colleague to guide you through those first teaching experiences. Or you may be taking over a course or a class from someone else who's still around to show you how it has been done in the past. But sometimes, you may find yourselves stepping into the shoes of someone who's moved on to a different institution or even retired. It can be scary to take on an established course or module when there's no-one around to answer your questions of "what can I do when…?".

There are plenty of books on teaching in higher education, but more likely than not, under the pressure of getting started in your teaching, you've not got time to use them yet. That's where I hope this booklet will be helpful to you.

You may already have the opportunity of relevant staff development or training. Through this, you may know people to ask when you have worries or problems. That said, even when such training is available, you are quite likely to have to get started in your teaching before the training covers what you need. In any case, you may feel that you want to show that you can sort things out on your own, and you may not want to share your concerns or worries with colleagues or mentors. If that's the case, I hope this booklet will help in its own way, not least the sections which address frequently asked "what can I do when…?" questions.

Before getting into the main part of this booklet, it could be useful for you to fill in the checklist opposite, to help you to establish where you are now and what your immediate priorities will be. But don't worry if filling this in makes you feel that there are too many challenges – the rest of this booklet aims to help you with all of them. And the first column is for 'not applicable' – in other words for all those challenges which aren't yours – not yet at least.

Where am I now? [insert date]

Question	Not applicable to me	Not yet	Yes	Date needed	Planned action
Lectures					
Have you got lectures to prepare?					
Do you know roughly how many lectures, and with how many students?					
Will you have one or more series of lectures with the same group of students?					
Have you got the intended learning outcomes for these lectures?					
Have you given lectures before on this topic?					
Have you got handout material on this topic?					
Have you got slides or overheads on this topic?					
Are you already able to make PowerPoint slides yourself?					
Will you be involved in setting exam questions in connection with your lectures?					

Question	Not applicable to me	Not yet	Yes	Date needed	Planned action
Small-group teaching					
Have you tutorials to prepare?					
Do you know roughly how many tutorials and how many students?					
Do you know where these fit into the overall module or course?					
Are *you* giving the associated lectures yourself? If not, do you know who is?					
Do you know what the tutorials are intended to cover? Do you already know the subject matter?					
Have you seminars to lead?					
Do you know roughly how big the seminar groups will be?					
Marking, assessment and feedback					
Will you have marking to do?					
Have you already experience of marking students' work and giving them feedback?					

Question	Not applicable to me	Not yet	Yes	Date needed	Planned action
Approximately how many students' work will you have to mark?					
Will you be giving the related lectures, or just some of them, or will other colleagues be doing the lectures?					
Your own top three further questions or other specific concerns at this point:					
1:					
2:					
3:					

Large-group teaching

Getting started with lectures

For many staff in higher education, lectures are the central part of their teaching. Even if you're new to higher education teaching, you've probably done something similar before. For example, you may have given presentations at conferences, which in many respects could be thought of as a similar experience. Actually, giving conference presentations is rather more scary, as the audience is likely to know a lot more about the subject than is typical of students at a lecture.

However, many people find the prospect of giving their first lectures quite daunting. The thought of an hour under the spotlight seems like a long time! In practice, even though most institutions timetable lectures for one-hour slots, it's rarely an hour in practice, as it can take a few minutes to get everyone settled into the room, and it is necessary to have the venue ready for the next class in reasonable time by the end of the allotted session.

Note-making rather than note-taking

Left to themselves, your students will often simply try to 'capture' the lecture by copying down things you say and things you show them. This, however, is just note-taking. Comfortable as it is to have a roomful of people writing down what you say, not much real learning is likely to be occurring. Students can do such copying actions without actually thinking much at all about what they're writing down. It is better to help your students to make notes rather than just take notes.

For example, now and then during your lecture, give them a couple of minutes to make a summary of what you've been talking about. It can then be useful to ask *them* to compare their summaries with students sitting close to them, and add to their own any interesting or important points that they may have missed.

Don't just 'lecture'

A notional one-hour lecture doesn't boil down to 60 minutes' worth of 'content', as the intended outcomes need to be introduced and then de-briefed, and your class needs to settle in and leave. So we're normally thinking about no more than say 45 minutes for the 'delivery' part of your lecture. But in practice, 45 minutes is too long for you to 'deliver' and too long for your students to 'receive'. Concentration spans are much shorter than 45 minutes.

It is better to break your lecture down into some shorter elements, for example no more than ten minutes at a time of you talking to your students, interspersed with getting them to do things, for example making notes, asking you questions, answering questions you ask them, and so on. Already the scary prospect of giving a one-hour lecture is much more manageable – all you need to do is to manage a few episodes of talking to your students, and intersperse a few episodes of them doing things (giving you the chance to catch your breath, regain your composure, and plan what exactly to do next).

Begin (and end) with the intended learning outcomes

It is good practice to explain to your students what they should be getting out of the lecture. Often, the syllabus of a course or module will already be expressed in terms of such outcomes, and for a lecture you will normally need to focus on just a few of these. However, the learning outcomes as written into course documentation are sometimes not particularly clear. For example, they may be expressed in rather vague terms such as "students will deepen their understanding of…".

To start a lecture well, it is much better to be able to say to the students: "by the end of this lecture, you'll be able to…" and then to list three or four things your students should be able to do by the end of that particular lecture, as a direct result of being there and of the experience you design for them there. There are all sorts of 'doing' words and phrases which help to clarify what 'understand' may have meant in the published versions, including 'explain', 'discuss', 'argue that', 'compare and contrast', 'prove that', 'describe the origins of', and so on.

In practice, it is better to present the intended learning outcomes for a particular lecture a few minutes into the event, so that all of your students have got there and settled in. It can be useful to spend the very first few minutes recapping what you have covered in previous lectures while latecomers arrive, and until the class is settled. If, of course, you're about to give the very first lecture in a series, you need to do something different, for example, gently quiz your students to find out how much they may already know of what you're about to start teaching them.

It's useful to let students *see* the intended learning outcomes as well as *hear* them. For example, show them as a slide or overhead, but also talk the class through them, making the most of tone of voice, body language, eye contact, and so on to help your students to see what the intended outcomes actually mean in practice. Don't just read the slide out to them, however – students can read from a screen or a handout quite a lot faster than we can talk, and get bored (or even irritated) if we read out to them things they can already see for themselves.

The intended learning outcomes can also take care of your *last* few minutes. Near the scheduled end of the lecture, it is useful to return to your slide of the intended outcomes.

Hint: if you're using PowerPoint slides, make your very last slide one repeating the intended learning outcomes. You can get instantly to that last slide simply by entering '99' (or any number greater or equal to that of the number of that last slide) at the keyboard and pressing 'enter'. This means that even if you haven't managed to get through all of the slides in your presentation, you can seamlessly go to that rounding-up slide. You can then ask your students about how well they now feel that they have achieved the outcomes, possibly asking them to show for each outcome in turn whether they feel they have 'completely achieved' or 'partly achieved' or 'not yet achieved' it by a show of hands raised – two, one, and none respectively. This not only reminds the students of what they should now be able to do, but also lets you know how well your lecture worked.

Making the most of handouts

Students like handouts. Sometimes handout materials are issued directly in lectures. Sometimes handouts are made available to students before lectures – in print or electronically. Alternatively, handouts are issued at the end of lectures, or placed on an intranet after the lecture.

The trouble with handouts is that your students can switch off mentally during your lectures if they feel that all of the information is in their handouts. When students coming out of lectures are asked: "Tell me what the lecture was about?" they admit: "Sorry, I don't know yet – I've got the handout, but I haven't read it properly yet"!

If they have the paper versions with them at the lecture, it can be quite tedious for them if you simply talk through what they can already see in front of them. It is much better to make sure that what they take away from the lecture is more than just the information in their handouts. For example, get your students to make extra notes expanding on important elements in the handouts, or deepening their thinking about the key issues you're introducing in your lecture.

What works best is to make handout materials interactive so that students do things with the handout during the lecture, and come out with something to which they have added a lot of their own ideas and thoughts, adding value to it.

One of the worries that many lecturers share is 'getting through all of the material' in a lecture or in a module. Handout materials afford the luxury of the option to focus on just some of the content, and to explain to your students that "other parts we are *not* going to talk about today are included in your handout – don't forget that you need these parts as well when you prepare for your exam" and so on.

Hint: it can be useful to have handouts with blank boxes for students to write into during lectures. In other words, have spaces for them to do tasks at a few points in your lecture. Rather than actually print the task briefings on the handout materials, it works better simply to put 'Task 1', 'Task 2' and so on in the empty boxes. This helps to stop students getting ahead of where you want them to be, but more usefully it gives you the chance to adjust the actual tasks depending on how the class seems to be getting on with the subject, and depending on the amount of time you find you have available. It is useful to have slides or overheads ready for a few alternative tasks, so that you can decide exactly what you want the class to do at each particular time. Also, if your students happen to ask an important question, for example, you can sometimes turn it into a task for all of them to try for a couple of minutes, before you answer the question. (This sometimes gives you the luxury of a couple of minutes to get your own answer ready.)

Designing slides for lectures

Most lecturers use slides or overheads. In particular, PowerPoint slides have become the norm. [**Note:** *they aren't in fact 'slides' at all – they are digital files on a computer or memory device, sent to a data projector and turned into a visual image on a screen*.]

In some subjects, slides can be quite sophisticated, containing diagrams, photos, graphs and charts, drawings and other sorts of visual information. In other subjects, slides tend to be mostly print on the screen, often 'bullet points' giving the main sub-topics that are going to be discussed, or questions that are going to be addressed in the lecture. However, it can get quite boring for students if all the slides are just print, and most lecturers now deliberately put in visual stimuli on at least some of their slides.

Slides allow your students to see things on the screen at the same time as they hear about them from you, and this means a better chance of your students making sense there and then of the topic in hand. Usually, you can see your slides on a computer screen in front of you, without turning round to the main screen onto which the image is projected, which means you can talk about your slides without turning your back on your audience. In former times when lecturers wrote on blackboards (or whiteboards), students' attention was often lost when lecturers turned to face the board – and lecturers' words were often lost if they talked to the board!

Slides are also a useful comfort blanket for us as lecturers. A well-produced set of slides gives an immediate impression of a professional and credible lecture, even when we're new at it. Slides can also be a way of making our lectures much more flexible, allowing us to respond to what actually happens in the session. For example, it can be useful to have prepared (say) 30 slides, but only to intend to use 20 of them at the session, with the others being there in case there is time to go into more depth about particular aspects, or to have a ready answer available for anticipated questions from students.

Hint: if using PowerPoint slides, prepare paper copies of all of your slides, say two per page, and lay these out in front of you if possible at the start of your lecture. Write clearly the numbers of the slides on your paper copies. When giving your presentation, you can go to any slide at any time, and in any order, simply by keying in '5' then 'enter' to go to slide 5, and so on. This is particularly useful when students ask a question and you may want to go back to an earlier slide, or for when time is running out and you want to skip ahead to a later slide, and so on. It gives you full control of which slides you show when, without having to clumsily run backwards or forwards though slides you're not actually going to use on that occasion. Remember, however, to tick off on your paper copy which slides you did in fact use (or not use) so that later you still have a record of exactly what you covered in that particular lecture.

Ten tips for good slides

1. Don't put too much on any slide. A few questions, headlines or bullet points are better than solid paragraphs. Detailed information is best left to handout materials.
2. Use large fonts, to ensure that everything can be read from the back of the room. Check this out – or get a colleague to run quickly through your slides with you sitting at the back yourself.
3. Check which colours work well. Some text colours (notably orange and red) don't come across clearly at the back of the room. The software allows you to have dark text against light backgrounds and vice versa. However, light text against dark backgrounds works rather badly if you can't dim the lighting in the lecture room (for example if there are windows without good blinds).
4. Try to fill only the top half or two-thirds of any slide. Students may have to peer around each other's heads to see anything right at the bottom of a slide – you can tell when they move their heads as you reveal a 'last bullet point' on a slide.
5. Use pictures, cartoons and graphs when they help to bring your subject to life.
6. Don't include detailed graphs, tables or flowcharts, if the detail would not be clearly visible at the back of the room. Such detail is better in handout materials than on-screen in the lecture room.
7. Don't include 'slide numbers' on slides (the software allows automatic numbering if that's what you wanted). Not including slide numbers gives you the freedom to pick-and-mix your slides, without your students realising that you're skipping some of them!
8. Don't issue 3-per-page or 6-per-page handout copies of your slides in advance. This robs you of opportunities to 'surprise' your students with unexpected quotations, or even 'fun' slides. Especially if you're going to pick-and-mix from your slides as in the 'hint' above, only issue later the slides you did actually use.
9. Don't cause 'death by bullet point'. It gets tedious for students if successive bullet points always come one at a time in exactly the same predictable way.
10. Learn from other people's use of slides. Whenever possible sit in on colleagues' lectures and conference presentations and see what works well for others – and what doesn't.

Hint: remember to switch the slides right off – and know how to get them back easily. There are few things worse than a slide staying up on screen too long after it has been used – for example when you've moved on to talk about something else, or are answering a question from your audience – it then just becomes a distraction for your students. An easy way of switching your slides off when using PowerPoint is to press 'B' on the keyboard – 'B' for black. When you want your slide back, all you need to do is press 'B' again – 'B' for back. This is far safer than risking switching off the data projector with its remote control – some machines take minutes to warm up again if switched off.

Questions and answers in lectures

A good lecture should be a shared learning experience for all present. Another way of putting this is that any student who misses the lecture should have missed something much more than just the PowerPoint slides or handouts.

Questions and answers work both ways. During your lecture, you've got the opportunity to help your students to think; asking them questions helps them to make sense of the topic, lets you know how well they are doing so, and alerts you to areas where they are not yet succeeding in getting their heads round the subject material being addressed. Allowing, and indeed encouraging students to ask you questions helps you to find out what they still need from you on their journey towards achieving the intended learning outcomes.

Getting students to ask *you* questions

What *not* to do: just ask "Any questions?" now and then. Why not? Usually there's no response, especially if you ask towards the end of your lecture. Students are likely simply to take your question as a sign to start packing up.

Also, when students do take advantage of your offer to respond to their questions, you tend to get questions from the relatively confident students, who aren't usually the ones who most need to have their questions answered. On the whole, students are shy at asking questions in lectures, not least because of the fear that they may ask a 'stupid' question and then feel embarrassed. Even when we assure them "better to feel stupid for a moment than to remain ignorant for a lifetime", voicing a question in a lecture is a risky prospect for most students. That's why they tend to come up to you at the end and ask their questions individually – but with schedules to keep, and the next class coming in shortly, that's not an ideal alternative in practice.

Some suggestions for when students do ask you questions in lectures include:

- Repeat the question to everyone – many may not have heard the question, and your answer won't make any sense if they don't know the question.
- Even if it *is* a stupid question, don't make its owner feel stupid – just answer it quickly and kindly.
- If you don't know the answer, don't make one up – say that you'll find out, or ask if anyone else has an answer.

Hint: a useful way of getting questions from a large group of students is to pass some Post-it® notes around. Ask all the students to jot down any questions they have, one per Post-it®, and either pass them down to you, or stick them on a wall or door on their way out of the lecture. You can then gauge which questions are the most prevalent ones, and answer them in your next lecture, and note also what the other questions tell you about how the overall learning is progressing in the group.

Getting students to answer *your* questions

In large group lectures in particular, students can be quite reticent about answering your questions. They may fear looking stupid or 'being caught out' when they haven't been paying attention.

Here are some 'don'ts' for asking questions in your lectures:

- Don't ask the whole class a question, then simply answer it yourself. That just causes the class not to take your questions seriously.
- Don't pick on the same students each time you ask a question – for example the ones who happen to have eye-contact with you. That just discourages students from looking at you!
- Don't just pick on students near to you – that allows those at the back to become even more switched-off than they may be already.
- Don't choose a student and then ask your question – that causes everyone else not even to try to think of an answer to your question.

Question, pause, *pounce!*

The best way to ask students questions in your lecture is this three-stage approach:

1. Ask the question.
2. Wait for enough time for most students to be ready to give at least some level of answer.
3. Pounce – pick a student at random. This means more students think of an answer – their learning is more active.

Hint: where possible, show your questions on-screen, so that students can see it as well as hear it. It also makes the questions seem more important to students, and they're more likely to take on board that these are questions that they need to be able to answer.

Another hint: if you're issuing handouts in your lecture, it only takes a minute or two to pencil onto (say) the top right-hand corner of each copy a number. You can then ask students to note the number on their handout, and also to notice the numbers on their neighbours' handouts. You can then ask your question, pause for a moment, then say: "Whoever has handout number 78, please?" You may notice this particular student 'shrinking', but people close to the student will point out the student concerned. Then when you've asked your next question, you can return to the owner of handout 78 and ask: "Now you pick a number between (say) 1 and 257, please", and from now on it isn't a matter of you picking on particular students to answer your questions – they have ownership of the process.

Don't, however, intimidate students

When you pick a student who can't (or won't) answer a particular question, move on fairly quickly to another student. If students come to fear the prospect of being asked a question in a large-group situation, they may well opt not to attend at all!

More tips on giving lectures

(adapted from Race, 2005)

1. **Always link lectures to assessment.** Give students cues and clues about how this particular lecture 'counts' in due course. Whenever you say "You'll need today's material for exam questions like so-and-so" you'll notice students jotting something down!
2. **Lecturers should be seen and heard.** Use a mike if it helps. Don't just say "Can you hear me at the back?" – ask someone in the back row a question and find out. And don't dim the lights to show your slides at the expense of students no longer being able to see *you*.
3. **Don't keep slides up too long.** Students will keep looking at the screen, even when that screenful is quite finished with. Get them to look at you now and then. For example, when using PowerPoint, on most systems pressing 'B' on the keyboard makes the screen go black. Pressing 'B' again brings it back.
4. **Avoid death by bullet point.** Make different slides look different – include some charts or pictures where possible. If you're confident with technology, put in some optional very short video clips now and then – but nothing which would matter if it didn't work straightaway.
5. **Try to cause the students to like you.** Smile. Be human. Look at them. Respond to them. If they like you, they're more likely to come to your *next* lecture too.

6. **Think of what students will be doing during the lecture.** Don't worry too much about what *you* will be doing, plan to get your students' brains engaged. Get them making decisions, guessing causes of phenomena, trying out applying ideas, solving problems and so on. They'll learn more from what they do than from what you tell them.
7. **Don't put too much into the lecture.** It's better to get students thinking deeply about a couple of important things, than to tell them about half-a-dozen things and lose their attention.
8. **Bring in some appropriate humour.** The odd funny slide, or amusing anecdote, or play on words can work wonders at restoring students' concentration level. Then follow something funny up with an important point, while you've still got their full attention. But don't use humour if it's not working!
9. **Keep yourself tuned into WIIFM.** 'What's in it for me?' is a perfectly intelligent question for any student to have in mind. Always make time to remind students about why a topic is included, and how it will help them in due course.
10. **Don't over-run.** At least some of your students are likely to have something else to go to after your lecture, and perhaps with not much of a margin for error. If you come to a good stopping place and there are 15 minutes left, do your closing bit and stop. Students actually like lectures that finish early now and then.
11. **Pave the way towards your next lecture.** After reviewing what students should have got out of the present lecture, show (for example) a slide with three questions which will be covered in next week's instalment.

Problems in lectures: "What can I do when…?"

Next we'll look at some of the most frequently occurring problems that lecturers experience. Some of these problems are the sorts of nightmares about lecturing which many new lecturers have. In each case, I will propose three or four suggested ways of getting round the problem – leaving you to take your pick of which would suit you best – or think of your own better way round the problem.

What can I do when I'm feeling very nervous?

You're not alone. Even many very experienced lecturers are quite nervous, especially with a new group, or with a subject they don't know particularly well. Some tactics that can help include:

- Smile! You'll notice that at least some of the students will smile back – this immediately makes you feel better.
- Have good prompts available. It's reassuring to have (for example) a list of your slides, so that you won't be nervous about losing your place in the lecture.
- Ad-lib an explanation of the importance of a point you've just recently been making. Sometimes the very fact that you're making a spontaneous addition is relaxing in its own right.
- Bring in your students. For example, ask them a question along the lines: "How many of you have already come across ...?" or "How many of you have never yet heard of ...?"
- Don't be afraid to pause for a short while, and take a deep (quiet) breath.

What can I do when I forget where I am in my lecture?

This happens to most lecturers now and then, so don't feel that there's something wrong with you if it happens to you. Your choices include:

- Give your students something to do for a couple of minutes. For example, have a slide or overhead already prepared for such an eventuality. Make the activity seem a perfectly natural step for your students, for example by saying: "Now would be a really good time for you to think for a minute or two about..." and then put up your task briefing. While the students are doing the task, you've got time to sort out where you are, and get ready to resume your lecture after debriefing students' work on the short task.
- Minimise the chance of losing where you are by having a print-out of your slides, so that you can quickly see what you've done and what you were talking about.
- Ask students to jot down the two most important things they've learned so far from your lecture. Then ask them to compare with those sitting close to them. Then ask for volunteers to tell you what they chose as these things. This often helps you to regain a feel for exactly what had been happening in their minds up to the point at which you lost your way.
- If you're very confident, you could say: "Oops, I've lost it! Anyone like to remind me what I was going to say next?" At least then, you'll have the full attention of your students for a moment – and they normally respond well to you just being human.

What can I do when I don't know the answer to a student's question?

A common nightmare. You'll feel less concerned about this as you gain experience – but the following tactics can take away some of any worries you may have about this.

- Give yourself time to think. Repeat the question to everyone, as other students may not have heard the question. Sometimes this extra time is enough to give you a chance to think of how you may respond.
- Don't try to make an answer up! If it turns out to be wrong, or if you get stuck in the process, you will soon have the full attention of all the students – not what you really want at this stage!
- Say: "This is a really good question. How many of *you* can respond to this?" and look for volunteers. Quite often, there will be someone there who is willing answer it.
- Break it down into smaller bits. Then start by responding to one of the bits where you do have something to say. If it's a question that your students don't actually *need* to know an answer to, say so. "Interesting, but not actually needed for your course," and so on.
- Admit that at this point you don't have an answer to the question, but you will find one by the time of the next lecture. Invite the student who asked the question to jot it down on a Post-it®, with their email address, so that you know exactly what the question was, and can respond to the questioner directly as soon as you've located an answer. But don't forget to share the answer with the whole group at the next lecture too.

What can I do when students repeatedly come in late, and disrupt my lecture?

This is a balancing act. There will usually be *some* students who arrive late, but sometimes the problem becomes more significant in certain time-slots and at particular times in a module.

- Don't gradually get more and more annoyed! The *next* student to arrive may have a very good reason for being late.
- Resist the temptation to be sarcastic (e.g. "How good of you to join us today"). Mostly, students who come in late don't actually enjoy being late, and if they get a rough ride from you, next time they're late they may well decide not to risk coming in at all.
- If the late-coming is noisy (loud doors, shoes on floors, and so on), pause until it will be possible for everyone to hear you properly again. The students themselves will get tired of having to wait for latecomers, and will often show their own disapproval, sparing you the need to do so.
- If necessary, agree some ground rules with the whole group. For example, if quite a lot of the students have had to come from another session at the other end of the campus, negotiate to start promptly five minutes after the normal time.
- Build in a little 'warm-up' time at the start of each lecture. In other words, start doing something useful with the students (for example reminding them of three important points from last week, or quizzing them gently).

What can I do when the technology lets me down?

For example, your PowerPoint slides disappear, or freeze! The thing *not* to do is to struggle for ages, with the undivided attention of the whole group, with a mouse, a remote control, a keyboard, or any other piece of technology. Alternatives include:

- Smile, rather than sweat! Even if inside you're quite tense about it, it's best to give the impression of being cool about it.
- Give your students a discussion task to do – something to talk about to those sitting next to them – a decision to reach, a problem to solve, and so on. It's a good idea *always* to have such a task ready and waiting. Then when they're all busy and eyes are off you, you can try to rescue the technology.
- Ask for help. "Anyone know how to fix this, please?" quite often brings a competent volunteer from the floor. Sometimes, you can ring up technical support, but it remains advisable to give the students something else to do until help materialises.
- Recognise when the problem is terminal – for example when the bulb has failed in a ceiling-mounted data projector.
- If it's towards the end of a session, wind up. Remind your students of the intended learning outcomes, and promise to cover anything important that remains outstanding on a future occasion – or to put the relevant slides onto the web. Your students won't mind you stopping early!

What can I do when attendance drops off during a series of lectures?

It could be, of course, that your students are getting bored – or tired – or are busy trying to catch up ready for someone else's assignment deadline. Whatever the cause of absenteeism, one or more of the following tactics may help:

- Don't wait an inordinate time for more students to appear. Those who came punctually deserve to be getting some value, so get started even if the audience is sparse.
- Find ways outside the lecture room to ask a few students why they missed a particular session. Don't however rail at them and tell them how unwise they are being – keep to fact-finding until you know more about what's going on.
- Link each and every lecture firmly to the assessment agenda. Students don't like to miss (for example) clarification of what a typical exam question could reasonably ask of them.
- Don't vent your frustration on the students who *do* turn up. If anything, make them feel all the more welcome and valued.
- Try for added value. Make sure that the students who do turn up feel that it's been well worth doing so. Give them a useful and enjoyable learning experience – and handouts they would have missed if they had not turned up.

What can I do if students are talking in my lecture?

Many lecturers get upset by this, and clearly if students can't hear you over each other's chatter, the situation becomes untenable.

- Don't just carry on trying to ignore it. That often makes the problem get worse. Pause, looking at the people who are talking until they stop – or until the other students shut them up for you.
- Don't necessarily assume they're just being rude. Sometimes, one will have asked another to explain or repeat something that has been missed. Sometimes they could be translating what you say into another language for each other.
- Acknowledge that you may have been talking yourself for too long, and give them something to talk about with near neighbours. In other words, *legitimise* their talking for a few minutes, and let them get the need to talk out of their system.
- Note any persistent 'talkers' but resist the temptation to confront them in front of the whole group. Instead, find a time to talk to them on their own, and explore how they're finding your lectures.
- Don't ask an 'offender' to leave! If they actually refuse to leave, you'll have a much more difficult problem to deal with. Never issue a threat that you would not in practice be able to implement.

What can I do if I come to the end and there are still 15 minutes to go?

Possibilities include:

- Say: "This is a good place to stop this particular session" and re-visit the intended learning outcomes for a moment or two, then wind up. Your students will not be terminally disappointed!
- Have with you a revision activity – for example a set of short, sharp quiz questions on your lectures to date with the group, and give them a quick-fire quiz until the time has been used up.
- Give out Post-its® and ask students to write any questions they would like to ask about the subject on them, and pass the Post-its® down to you. Choose which questions to answer to the whole group until the time is used up.
- Put up a slide of a past exam question on the topic you've been covering, and explain to students a little about what was expected in answers to that question.
- Ask the students to write down the two most important things they now know, that they didn't know when the lecture started. Then get them to compare with their neighbours, and invite volunteers to read out a few such things.
- Give a brief overview of what's coming next – for example showing the students the intended learning outcomes for the next couple of lectures.

Checklist: preparing your lecture

Question	Yes	Not yet	Not applicable	Action planning
Do I know how many lectures I will be giving to this class?				
Do I know roughly how many students may be there?				
Have I found out what these students are likely to know already about the topic of the lecture?				
Do I know where my particular lecture fits into the overall course or module my students are studying?				
Have I been to see the actual lecture room I expect to be using?				
Have I got the published intended learning outcomes for this lecture, if any?				
Have I turned these into the actual intended learning outcomes I will introduce at the start of my lecture?				
Have I prepared slides or overheads to accompany my lecture?				
Have I checked out that I can work the equipment I need in this particular venue? Is all the equipment already there?				
Have I prepared any handout material I want students to have in their hands during my lecture?				
Have I the opportunity to talk about my particular lecture to other colleagues who already work with these students?				
Have I tested that I can be seen and heard well in this lecture venue?				

Review checklist: after giving the lecture

Question	Very well	Quite well	Not well	Action planning
Did I introduce and explain the intended learning outcomes clearly to the students?				
Did I manage to speak confidently and clearly?				
Did I give the students some things to do as part of the lecture?				
Did I manage to involve *all* of the students in doing things during the lecture?				
Did my slides or overheads help the students to make sense of the subject?				
Did I remember to switch the screen display off when it was not needed?				
Did my handout materials work well with the students?				
Did I engage the students by asking them questions during the lecture?				
Did I succeed in getting the students to ask me questions?				
How well did I answer the students' questions?				
Did I return to the intended learning outcomes, and find out how the students felt they had got on with them?				
Did I bring the session to a rounded and punctual close?				
What was the best thing about this particular lecture?				
What was the least satisfactory thing about this particular lecture?				
What is the single most important change I intend to make next time I give this particular lecture?				

Small-group teaching

With drives towards efficiency and cost-effective provision, in some disciplines small-group teaching has been reduced or even phased out, in favour of lectures and resource-based learning (paper-based, online, or both).

Perhaps, however, the most significant reasons for using small-group teaching are the benefits students acquire which lie beyond the curriculum as expressed through intended learning outcomes; the emergent learning outcomes associated with small-group work help students to equip themselves with skills and attitudes they will need for the next stages of their careers – and lives.

Seminars and tutorials

These terms are sometimes used interchangeably for small-group sessions. However, strictly speaking, a seminar is usually meant to be a student-led small-group session, for example when one or more students give a short presentation, then answer questions and open up discussion on a pre-assigned topic. Here, the tutor's main responsibility is to be a facilitator or chairperson.

Tutorials come in many shapes and sizes, from one-to-one face-to-face sessions between staff and individual students, to small-group teaching-learning sessions directed largely by tutors, but with a considerable expectation of active learning by students rather than passive 'sitting and listening'. In some disciplines, tutorials often take the form of problems-classes, where small groups of students work through quantitative problems either individually or collaboratively, guided by the tutor and helped out when necessary.

What could go wrong if there was no small-group teaching?

If small-group teaching for some reason had to be discontinued, the following manifestations could occur:

- Increased drop-out and failure statistics, because students would not have enough opportunity to get help with their difficulties.
- Students would be much less aware of how well (or indeed how badly) their learning was progressing, as they would miss out on small-group contexts allowing them to gain a great deal of feedback from each other.
- More time would need to be used trying to help those students making appointments for one-to-one help with particular problems – often the same problem many times over.
- There would be more interruptions to the flow of large-group teaching, when it would no longer be possible in a lecture to reply to a question: "This is just the right sort of question to discuss in detail in your next tutorial – bring it along then and make sure that it is sorted out to your satisfaction".
- Increased risk of students succeeding satisfactorily in written assessment scenarios, but not having gained the level of mastery of the subject matter that comes from discussing it, arguing about it, and explaining it to other people.
- Increased risk of lecturers remaining unaware of significant problems which students were experiencing until too late – when the problems had turned into assessment failures.

How students sometimes spoil small-group work

Before we look at what we can do to make small-group teaching work well, it is useful to think about some of the things that can get in the way of small-group teaching. Later in this section, we'll return to some of these in the "what can I do when…?" mode, but for now, let's just list some of the potential problems, starting with some difficulties that students can cause us.

1. **Students don't take it seriously.** Students often seem to regard lectures as much more important than seminars or tutorials. This is sometimes our fault – if we don't seem to be taking small-group teaching as seriously as lectures, students are quick to pick up the vibrations.
2. **Some students don't turn up.** This follows on from the problem above, but it makes our job all the harder if we don't know till the last minute what size group we are likely to be working with.
3. **Some students come unprepared.** They turn up without having done the pre-reading or preparatory work which we set in advance of the small-group sessions.
4. **Some students tend to dominate.** It can be tiresome for their group-mates, and we often need to change group membership regularly, so that the dominating students are spread around.
5. **Some students are 'passengers'.** In large-group teaching, we can't always get everyone to participate actively (though we can try), and passengers can usually get away with not contributing. In small-group contexts, however, passenger behaviours become more noticeable, and we need to try all the harder to make sure that small-group learning is active for all present.
6. **Students may fall out with each other!** Conflict can arise in small-group contexts, particularly when student contributions to the products of the work of a group are assessed, and when contributions have been uneven.

How *we* can spoil small-group work!

The things that go wrong are not all down to students. The following short list shows that our own actions can lead to small-group work being unproductive.

1. **Tutors sometimes carry on teaching, rather than keeping students working actively.** Particularly if the students don't engage actively, or ask questions, it's all too easy just to keep the small-group session going by expanding on what we may have covered in lectures.
2. **Tutors sometimes make students feel uncomfortable.** For example, when students turn up but have not done the expected preparation for a small-group session, it is natural enough to exhort them to greater efforts in future. However, if they respond badly to such pressure, they become more likely simply to skip a future session if they haven't prepared for it.
3. **Tutors sometimes allow domineers, and fail to bring in shy violets.** We need to find ways of equalising contributions in small groups, such as using Post-its® to get everyone to contribute ideas before opening up for discussion.
4. **Tutors sometimes fail to make it clear what each small-group session is intended to achieve.** It is useful to continue the practice used for lectures regarding specifying some precise intended learning outcomes for small-group sessions.
5. **Some groups can become 'disadvantaged'.** For example, if a particular group gets into detailed discussion of what the assessment standards are, or what would be reasonable exam questions to expect, other groups who did not have this discussion are disadvantaged. Ideally, it is best to have any discussion about standards in the whole-group session.

Five ways to help students to learn well in small-group contexts

1. **Help students to want more strongly to learn.** Our best chance to achieve this is through our own enthusiasm for the subject – and making it obvious that we have students' best interests at heart and want them to succeed. If tutors seem bored with a subject, it is hardly surprising that students will not be excited by it!
2. **Help students to take ownership of their need to learn.** We can do this by reminding students of what's in it for them to succeed with their learning, and helping them to see exactly what they need to become able to do to succeed. This boils down to making it very clear what sort of evidence of achievement they need to be working towards. It also helps if we remind students that this is going to be perfectly manageable for them, and that even the most complex outcomes are achieved one small step at a time.
3. **Make sure students understand that learning happens by doing.** Help them to see that very little happens just sitting looking at some notes or handout materials, but that learning starts when they try to do something with the materials. Also, help them to see that learning happens one step at a time, and that even the most difficult tasks can be broken down into small steps. When learning from books, handouts, or on-screen, a useful maxim is "not much learning will happen unless you've got a pen in your hand and are using it". In other words, tutors can help students not to 'drift', but to make notes, jot down questions, practice answering questions, and so on while working with learning resource materials.
4. **Make sure that students get quick and useful feedback.** Help them to assess their own achievements, and to reflect on things they have done successfully, and think quite deliberately of what worked in their learning, and why it worked. Even more importantly, we can help students to learn from their mistakes. If we can help them to see that getting things wrong at first is a very productive step along the way to getting them right, they can gradually become able to look at learning by trial-and-error as a valid and productive way of going about their learning.
5. **Help students to make sense of things.** Point out the benefits of collaborative learning here. Help students to find out how much they get their own heads round something they have just learned by explaining it to some fellow-students who haven't yet seen the light, and talking them through it till they too have made sense of it. More about this aspect of tutoring follows later in this booklet. It can be important not to allow students to worry too much about 'not understanding' something – especially when difficult concepts or ideas are involved. Sometimes, the understanding will take its own time to dawn. Some things have to be lived with and worked with for a while before understanding begins to dawn. Indeed, sometimes there's actually no need to *understand* something to succeed at assessment with it. All one may be required to do is to use it or apply it, and this may often be done perfectly successfully even without understanding it. In an ideal world it would be good for everyone to understand everything, but in the real world students are measured on their demonstration of the evidence

of achievement, not necessarily understanding. It can in fact be enormously comforting for students who are struggling for a tutor to say: "Don't worry that you don't yet understand this – just keep practising with it, and the understanding will come in its own time".

Various ways of forming sub-groups

Suppose you've got a larger group of students (20 upwards) and you want to get them into groups of four or five. There are several approaches to doing this, all with their own pros and cons.

- **Let them form their own sub-groups.** These are sometimes called 'friendship' groups because of the likelihood of friends already being close to each other, or may be 'geographical' groups chosen on the basis of who is where in the room when the groups are forming. An advantage is that students who like each other or know each other may work well together. A disadvantage is that there will often end up being a 'reject group' based on those students who didn't get quickly into a friendship group, and such students may start the group-work on a sadder note.
- **Alphabetical groups.** Class lists are one way of predetermining the composition of groups. In a way it's a way of forming random groups, but if the same technique is being used by several tutors the group composition may be boringly similar in different subjects.
- **Really random groups.** You could go round the larger group, calling out: "A, B, C, D, E..." and giving each student a letter, then ask: "All the 'As' collect in this corner, all the 'Bs' over there..." and so on.

- **Successively different groups.** One way of making this happen is to use sticky labels on which you've already written a three-digit code and onto which students can write their preferred names to use as name badges. The code could consist of:

  A symbol (triangle, asterisk, square, or sticky coloured dots);

  A letter (A, B, C, etc);

  A number (1, 2, 3, etc).

  The first group membership could be "all the people with the same symbol collect together..."; then the second group task could be "please go into groups by letter - the 'As' over here, the 'Bs' there..." and so on, and finally the third group arrangement could be "all the '1s' here please, the '2s' there", and so on. That way everyone will be in an entirely different group three times over, and students will interact successively with a wide range of the overall number in the whole room.

Deciding on sub-group size

In small-group teaching, it's often useful to divide the students into sub-groups, where the sub-group size depends upon what you intend your students to be doing. Some factors you may take into account are listed below.

Pairs: these aren't really groups, in a sense, but the advantages include the fact that it's not easy for one member to be completely inactive.

Threes: this group size is small enough to avoid most of the risks of 'shy violets', and big enough to bring together more experience than a pair. A disadvantage is that trios can often ending up with two ganging up on the other one.

Fours: still small enough to ensure that everyone is encouraged to contribute – many group-work facilitators find fours a preferred group size. Disadvantages can include a tendency for the group to split itself into two pairs, and there isn't a 'casting vote' if the pairs disagree on what to do next or how to approach a task.

Fives: here there is the 'casting vote' opportunity. The group is now getting just about large enough for the odd 'passenger' or 'bystander' to get away without contributing much to the work of the group.

Sixes and more: the main danger becomes passenger behaviours or non-participation.

Nine ways to help your students to get the most out of small-group sessions

1. **Help your students to become ready for assessment**
   This is the sharp end of tutoring, not least because most forms of assessment involve winners and losers – and it is very uncomfortable to be a loser. Perhaps the most important attribute of excellent tutors is the ability to be felt by students to be 'on their side' in the assessment battle. Even when tutors are going to be doing the assessment themselves, it is really helpful for students to feel that everything possible is being done by their tutors to maximise their chances of succeeding at the assessment hurdle. Preparing for assessment should not degenerate into the 'guess what's in the tutor's mind' game – there should be no guesswork involved, students should have a clear idea of what's in their tutors' minds. In particular, it helps when tutors strive to help students to make sense of what they have learned, so that they feel they have 'digested' the information involved, turned it into their own knowledge, and have a sense of ownership of their achievement well before the time when they are required to demonstrate evidence of their achievement of the learning outcomes.

2. **Negotiate agreements with your small-group students**
   The main advantage of learning agreements is that they help students to take ownership of the need to learn, and that because it is an *agreement* they feel they have played a part in working out the timescales involved, and deciding *what* to learn, and *how best* to go about learning it, *and at what level* the learning needs to take place. The best ways of making it feel like an agreement to students is to ensure that they see that their tutors have their own parts to play in bringing the agreement to fruition.

3. **Help students to make sense of their targets**
   In particular, clarify exactly what is meant by the intended learning outcomes. The problem with such outcomes is that they are often written in a foreign language to students – 'academese'! It is all very well to use phrases such as 'demonstrate your understanding of…' but students need to know exactly *how* they are expected in due course to do this. They need to know what the evidence will look like when they have 'understood' something to the level required. They need to know what the standards are that will be applied to this evidence. They need to understand the contexts in which this evidence will be generated – whether it be exams, coursework, practical work, independent work and so on. Small-group contexts are ideal for helping your students to find out exactly what the intended learning outcomes mean in practice.

4. **Help students to see the importance of becoming better at learning**

   Study skills are important, not just in the context of helping students work their way towards succeeding in their present studies, but for life in general. Students will continue to need to learn new things far beyond the years when they are involved in formal study, and the better they become able to take on new learning targets, and work systematically and purposefully towards achieving these targets, the better the quality of their future lives. Even when an element of learning has proved unsuccessful, there are usually useful study skills lessons to be gained from the experience. Study skills cannot be directly 'taught' – they are (like just about everything else) learned by doing, practice, trial and error, and experience. Tutors can use small-group learning contexts to help by setting up practice opportunities, responding to the trial and error, and helping students to learn productively from each other's experience.

5. **Help students to manage their time**

   Time management is not only an essential study skill – it is a life skill. Probably the most important single element of time management is 'getting started' on each task – if something isn't started it will never get finished! Therefore, tutors in small-group contexts can help students to get their learning underway by pointing out that human nature is to find 'work avoidance tactics' which delay getting started, but that once they are recognised as such it is perfectly possible to counteract them. A task that has only been started for five minutes is much more likely to be completed than a task that has not yet been started. Therefore, tutors can help by making sure that tasks get started in face-to-face contact time, even if only for those vital minutes that will allow students to go away and continue them in their own time and at their own speed.

6. **Help students to balance their act**

   An important addition to good time management is good *task management*. In other words, help students to prioritise their tasks. This involves making sure that the important ones get done, and the less-important ones aren't given too much time. Tutors can help students in working out what exactly are the most important tasks, and putting these at the top of the agenda. Tutors can also help by advising on sensible limits for the important tasks, so that they don't just swallow up all of students' available time and energy and leave other important tasks un-started. It can be better to do an hour's worth on each of three tasks than to spend all three hours on one task, especially if all three tasks contribute to the assessment agenda.

7. **Help students to identify questions, and seek the answers to these questions**

   "If I knew what the exam questions were going to be, I could easily prepare for the exam", many students say. But they *can* know what the questions are going to be. "Any important piece of information can simply be regarded as the answer to a question" is a useful way of helping students to think in terms of questions rather than information. Once they know what a question is, they can find out the answer in any of the following ways:

   - Look it up in a book or handout
   - Look it up on the internet
   - Ask other students and see if they know the answer
   - Ask other people altogether
   - Ask an expert witness – for example you.

   Encourage students to make question banks of their own. In other words, get them to jot down all the questions which they might some day need to be able to answer to demonstrate their learning. It is really useful to start with the intended learning outcomes, and turn these into long lists of very short, sharp questions, so that students get the message that if they can answer lots of straightforward questions, they can in fact answer much more complex questions, as these just amount to a collection of the shorter ones in practice.

   It can be particularly useful to get students to make question banks in small groups, so that the range of questions is better, and to help them to learn from each other's questions. Tutors can give valuable responses regarding which questions are the really important ones, to help to steer students to the main agendas of their learning.

8. **Help students to become better readers**

   Not all students come from households where walls are lined with bookshelves. Not all students devour books. Indeed, for many students, reading is not a particularly pleasurable activity, unless they are reading about something about which they are already passionate. Tutors can help students to realise that they don't have to devour books, but that all that may be needed is to use them successfully to find information from them. In other words, information retrieval (whether from books or websites) does not necessarily mean reading everything in sight, but homing in to what's important. This goes back to starting reading with *questions* in mind. If students read a page of text pre-armed with five questions, they are much more likely to get what is intended out of the page than if they just 'read' it.

   Help students to make good use of headings, sub-headings, contents pages, and the indexes of books and articles. Help them to read in 'search and retrieve' mode, so they are looking for particular things, and noting them down as they find them, rather than simply reading page after page vainly hoping that some of the information there will 'stick'.

9. Help students get their revision act together

Most students regard revision for tests or exams as a bore! This is all too often because they have previously tackled the job in boring ways. They have tried to 'learn' their subject materials in non-productive ways, and become disillusioned.

A good start is for tutors to reinforce that revision is simply about systematically becoming better able to answer questions – that's what exams and tests actually measure. As with anything else, the best way to become better at something is to do it – and do it again – until it becomes second nature. Students who have practised answering a question seven times in a fortnight are very likely indeed to get it right the eighth time – in the test.

Another way tutors can help students with revision is by alerting them to what not to revise. There's no point spending a lot of time and energy on learning something that won't or can't be the basis of a sensible exam or test question. Similarly, anything that isn't directly related to an intended learning outcome is not on the revision agenda – if it were important it would have been there among those intended outcomes.

Tutors can remind students that what is measured by tests and exams isn't what's in their heads – it's usually what comes out of their pens or pencils. In other words, it's their evidence of achievement of the intended learning outcomes that is the basis for assessment, and the best revision processes involve purposeful practice at evidencing that achievement.

Checklist: preparing your small-group session

Question	Yes	Not yet	Not applicable	Action planning
Do I know how many small-group sessions I will be running with this class?				
Do I know whether I will be taking all of the class in separate repeated sessions, or whether other colleagues will be running parallel small-group sessions alongside mine?				
Do I know whether the small-group sessions will be tutorials (in other words led by me) or seminars (where I'll get students to prepare and lead elements), or a mixture of both?				
Do I know whether I will be running associated lectures with the students, or whether the lectures will be given by other colleagues?				
Have I worked out the intended learning outcomes for these students in language I can share with the students?				
Do I know where these small-group sessions fit into the overall course or module my students are studying?				
Do I know whether I'll be using the same teaching room for all of these sessions with these students?				
Have I prepared task-briefings for work students will do before the sessions?				
Have I prepared task-briefings for a range of possible tasks students could do during the sessions?				
Have I prepared handout materials, slides or overheads to accompany these sessions?				
Do I know whether any equipment I may need in these sessions is available in the rooms concerned?				

Review checklist: after running a small-group session

Question	Very well	Quite well	Not well	Action planning
Did I introduce and explain the intended learning outcomes clearly to the students?				
Did the session work well in terms of these outcomes – did most of the students achieve the outcomes?				
Did the activities I planned for the students work out well in practice?				
Did I manage to involve all of the students in doing things during the session?				
For seminar-type sessions, did I manage to let students themselves play a full part in delivering their contributions?				
Did I succeed in getting the students to work together in different combinations, so that they made the most of collaborative working?				
Did I manage not to intervene too readily if the session 'got stuck' temporarily?				
How well was I able to use the small-group session to address questions and problems raised by individual students?				
Did I bring the session to a rounded and punctual close?				
What was the best thing about this particular session?				
What was the least satisfactory thing about this particular session?				
What is the single most important thing I will do differently next time I run a similar session?				

Problems in small-group teaching: "What can I do when…?"

What can I do when students don't turn up for my small-group sessions?

In practice, there's little mileage in trying to 'force' students to turn up to any element in their programmes, and when students don't regard small-group teaching as particularly important, the problem of absenteeism increases. However, a combination of one or more of the following tactics can improve things sometimes:

- **Make sure it's worth turning up.** When the students who are present come away with something they would not have wanted to miss (be it handouts, the light dawning, tasks they found valuable doing, and so on), the word can get around and attendance can improve.
- **Ask some regular absentees "What's wrong?"** Sometimes there could be a timetable clash you didn't know about, or travel difficulties relating to a particular time slot. Sometimes, of course, the answer can be "I didn't find the sessions helpful" and we may need to probe gently into "why not exactly?" and remain ready to listen to the responses.
- **Keep the assessment agenda on the table.** When students can see that each small-group session has a bearing on helping them become ready for future exam questions, or helps them see what's being looked for in coursework assignments, they are less likely to miss them.
- **Include at least some coursework mark for 'participation'.** Don't just include it for attendance, however, or the odd student may come along but not join in!

What can I do when students refuse to do a task?

This is an awkward one. If *all* the students won't start your task, it's worse. The following tactics can help:

- **Make sure the task briefing is really clear.** Explain again exactly what you want them to do. It can be useful to say "what it really means is…" and then put it into straightforward language.
- **Show the task on a slide or overhead, or give it out as a handout.** Sometimes, students can get the gist of a task rather better if they can see it and hear it at the same time.
- **Try to find the block.** For example, ask students "Which part of the task are you having problems with?" and see if clarifying that part helps them to get started.
- **Break the task into smaller bits.** Ask students to just do the first bit now, and then explain the later stages one by one when they're properly under way.
- **Ask them to work in pairs to start with.** You can then go round any pairs who still seem reluctant to start the task, and find out more about what could be stopping them.
- **Set a precise deadline for the first part of the task.** Sometimes this is enough to get them started.
- **Resist the temptation to keep talking.** Give them some time when there's really nothing more going on, and it's clear that you expect them to get stuck into the task. A few seconds of solemn silence may seem interminable to you, but the resistance to getting started with the task may be fading away.

What can I do when students don't get on with each other?

This is more likely to happen in small groups than large groups. The following tactics can help:

- **Re-arrange group membership now and then.** This can be done randomly, but check that particular pairs of students who didn't seem to be getting on are then moved apart into different groups.
- **Give them all a task to start on their own.** Sometimes if all of the students have already invested some energy in thinking through the topic before the actual group work begins, differences between students are pushed further into the background.
- **Make the first part an individual written task.** For example, give out Post-its®, and ask everyone to jot down a single idea relevant to the task. Then when everyone is armed with at least one idea, the chances of students not getting on with each other can be reduced.
- **Go closer to the people who don't seem to be getting on.** Sometimes, your proximity will cause them to bury any differences – for the moment at least. You may also then get the chance to work out what exactly has been causing the confrontation between the students concerned.
- **Watch out for the occasional 'difficult student'.** When the same person doesn't get on in group work contexts with different individuals, it can be worth having a quiet word. Just sometimes, you'll find the odd student who really doesn't function well in group contexts.

What can I do when one student dominates the group?

This is a frequent occurrence. Sometimes the causes are innocent enough – enthusiasm, knowing a lot about the topic, and so on. One or more of the following tactics may help you to balance things out:

- **Set appropriate ground rules at the start of small-group work.** It can be useful to say a little about leadership and followership – making the point that in many small-group situations in real life, too many leaders can militate against success, and that everyone needs to be able to be a good follower for at least some of the time.
- **Re-arrange group membership regularly.** This means that the domineering student moves on, and doesn't dominate other students for too long.
- **Intervene gently.** For example after the domineering student comes to a pause, ask: "Would someone else now like to add to this, please?"
- **Have a quiet word.** Do this with the domineering student outside the group context, for example giving suggestions about 'air time' and allowing everyone's views to be heard.
- **Change the dynamic.** Appoint the domineering student as chairperson for a particular activity, with the brief not to make any input on that task, but to co-ordinate everyone else's thinking.
- **Don't fight it too hard.** Recognise that domineering is a common human trait, and that domineering people often reach distinguished positions in the world around us, and may be developing relevant skills in small-group contexts.

Assessment, marking and feedback to students

Why are assessment and feedback so important?

Nothing we do affects students more. If we get our assessment wrong, students' whole lives or careers could be jeopardised. And feedback is vital to students, so that they can be praised for what they do well, learn from their mistakes, and improve their next piece of work on the basis of our feedback.

We may have 'lecturer' in our job title, but most of us actually spend most of our time not lecturing or teaching, but designing student assignments and exams, marking students' work, and giving students feedback on their progress. For many, this is a real 'in at the deep end' experience. Sometimes it seems as if we're expected simply to hold a red pen in our hand and automatically to know how to use it!

Summative and formative assessment

'Summative' assessment is normally measured at the end of an element of learning – for example end-of-module exams. Students usually get the results as marks or grades, and may sometimes not get any further feedback (for example on their exam performance).

'Formative' assessment is normally used during the course of a module, and even though the marks or grades may count towards students' overall awards, the feedback they receive is intended to help them to identify weaknesses and build on strengths to make their next piece of assessed work better. With large classes, the time taken to give students effective formative feedback increases, and the danger is that the quality of the feedback is reduced by the pressure on assessors.

Assessment matters to students

Students are often quite strategic about their learning – if it counts towards their overall qualifications they will do it – if it doesn't, many won't! This, in fact, is an intelligent response to the situation students often find themselves in – a heavy burden of coursework assessment and looming exams.

Yet assessment and feedback are areas where students are least satisfied with their experiences of higher education, as shown by the data from the annual National Student Survey in the UK.

It is probably the case that students who are highly successful in assessment are perfectly satisfied with the feedback they get, and that student dissatisfaction with assessment and feedback is attributable to students who fare less well, and perhaps rightly believe they could have done better if they had been given enough formative feedback early enough to improve their performance.

The sharp end of learning and teaching

Because assessment is so important to students, emotions can run high. Students can be very sensitive to the language we use when we give them feedback. It is all too easy for us, despite our best intentions, to damage their motivation in our attempts to give them constructive feedback on weaknesses in their work. This danger is exacerbated if we have large piles of work to mark, and not enough time to phrase our feedback carefully.

Assessment is at the sharp end for us too, as we are likely to be under the scrutiny of external examiners.

Fit-for-purpose assessment is valid, reliable, transparent and authentic – and manageable!

Why do we need these characteristics for assessment and what do they actually mean in practice?

Validity is about making sure that we're using assessment to measure exactly what we set out to measure – students' evidence of achievement of the intended learning outcomes. We need therefore to make sure that we know exactly *which* intended learning outcomes each element of assessment is addressing. But sometimes validity can be compromised by the form of assessment we choose – for example traditional exams sometimes end up measuring how well students can write about what they know, rather than how well they've got their heads round the subject.

Reliability is about making sure that we're being fair and consistent, and that each mark or grade is accurate and realistic. In practice, this means that we've got to make a well-honed *marking scheme* for each element of assessed work (whether it is an exam question, an essay, a report, or many other possibilities) so that we can be sure that we're being equally fair to all our students. When there's a really good marking scheme, different assessors will agree on the marks to be awarded for particular exam answers or assignments. Also, there won't be any variation in the standard of assessment on the journey from the first piece of work you mark down to the last piece in the pile.

Transparency means we have to make sure that our students know how assessment works. They need to know what we're looking for in an excellent answer. They need to know what they must do to reach a pass mark. They need to know what would *not* get them a pass. In other words, we need to help our students to see that what is being assessed is their evidence of achievement of the intended learning outcomes, and that these outcomes are useful to them as goalposts for their studying.

Authenticity has two sides. We need to be sure that what we are marking is indeed the work of the students concerned – in other words that they haven't copied it or downloaded chunks from the web. At least in traditional exam situations, we're fairly sure about whose work it is. But plagiarism is largely a problem of our own making – we need to design out plagiarism in coursework assessment, by making what we assess more clearly students' individual efforts (for example critical incident accounts, reflective logs, and so on). The other side of authenticity is about how 'real life' our assessment is in practice. For example, we can't expect to measure drama performance skills effectively by asking students to sit in an exam room and *write* about drama performance skills!

Manageability also has two sides – assessment needs to be manageable for us – and for our students. In the UK, it can be argued that there's too much assessment, and that because of all of the pressure this causes it doesn't work very well. We need to be streamlining assessment so that it is of high quality and we're *assessing* (making judgements on important things) and not just marking (merely ticking off routine things, for example spelling, punctuation and grammar). When students themselves are overloaded with assessment, they are often driven to surface-learning mode, learning things rapidly just for the exam or assignment, then forgetting them just as quickly.

Beyond exams, essays and reports

Traditionally in higher education in the UK, there has been perhaps too much emphasis on written assessment, and students' qualifications have depended too much on their skills relating to quite a narrow range of ways of demonstrating their achievement of the intended learning outcomes: answering exam questions, writing essays and writing reports. There are many alternatives, including:

- **Computer-marked multiple-choice tests or exams:** once set up, the computer handles all the marking, and can even cause feedback to be printed out for candidates as they leave the test venue, or indeed give them instant on-screen feedback if the main purpose is feedback rather than testing. Care has to be taken, however, when designing multiple-choice questions for testing purposes, so that the questions discriminate reliably between students at different ability levels in the subject concerned.
- **Short-answer exams or tests:** these reduce the effect of students' speed of writing, and can cover a greater breadth of syllabus in a given assessment element than when long answers are required.
- **Annotated bibliographies:** for example where students are asked to select (say) the most relevant five sources on a particular idea or topic, then review them critically, comparing and contrasting them in only (say) 300 words. This can cause students to think more deeply about the topic than they might have done if writing a 3,000-word essay (and the annotated bibliographies are much faster to mark).
- **Portfolios of evidence:** these can take even longer to assess than essays or reports, but can test far more than mere essay-writing or report-writing skills.
- **Oral presentations:** these focus on important skills that would not be addressed or assessed through written assessment formats.
- **In-tray exams:** much more 'real life' testing situations, where instead of a question paper on the exam room desk there is a collection of paperwork, which students study and use to answer relatively short, sharp decision-making questions which are issued every now and then during the exam.
- **Open-book (or 'open-notes') exams:** where students don't have to rely on memory, and have with them the texts or notes of their choice (or a known-in-advance selection of texts and handouts), and where the exam questions test what they can do with the information already on their desks.
- **Vivas (oral exams):** which can be a better measure of students' understanding, as their reactions to on-the-spot questions are gauged and there is no doubt about the authenticity of their answers (such doubts can colour the assessment of various kinds of written work).
- **Poster displays:** where students' individual or collaborative design and originality can be among the attributes measured.

Setting exam questions

Often, only on the first occasion when they mark exam scripts do lecturers first become aware of just how sensitively the questions need to be designed, and how clearly the assessment criteria and marking schemes need to be laid out to anticipate as many as possible of the different ways that even the most unambiguous-looking question can turn out to be answered in practice. The suggestions below are extracted from Race et al (2005) and may help to spare you from some of the headaches that can result from hastily written exam questions.

1. **Don't do it on your own!** Make sure you get feedback on each of your questions from colleagues. They can spot whether your question is at the right level more easily than you can. Having someone else look at one's draft exam questions is extremely useful. It is better still when all questions are discussed and moderated by teams of staff. Where possible, draft questions *with* your colleagues. This allows the team to pick the best questions from a range of possibilities, rather than use every idea each member has.
2. **Get one or two colleagues to do your questions – or do them yourself!** Sometimes even sketch answers can be helpful. This may be asking a lot of busy colleagues, but the rewards can be significant. You will often find that they answered a particular question in a rather different way than you had in mind when you designed the question. Being alerted in advance to the ways that different students might approach a question gives you the opportunity to accommodate alternative approaches in your marking scheme, or to adjust the wording of your question so that your intended or preferred approach is made clear to students.
3. **Have your intended learning outcomes in front of you as you draft your questions.** It is all too easy to dream up interesting questions which turn out to be tangential to the learning outcomes. Furthermore, it is possible to write too many questions addressing particular learning outcomes, leaving other outcomes unrepresented in the exam.
4. **Keep your sentences short.** You're less likely to write something that can be interpreted in more than one way if you write plain English in short sentences. This also helps reduce any discrimination against those students whose second or third language is English.
5. **Work out what you're really testing.** Is each question measuring decision-making, strategic planning, problem-solving, data-processing (and so on), or is it just too dependent on memory? Most exam questions measure a number of things at the same time. Be up-front about all the things each question is likely to measure. In any case, external scrutiny of assessment may interrogate whether your questions (and your assessment criteria) link appropriately with the published learning outcomes for your course or module.

6. **Don't measure the same things again and again.** For example, it is all too easy in essay-type exam questions to repeatedly measure students' skills at writing good introductions, firm conclusions, and well-structured arguments. Valuable as such skills are, we need to be measuring other important things too.
7. **Include data or information in questions to reduce the emphasis on memory.** In some subjects, case-study information is a good way of doing this. Science exams often tend to be much better than other subjects in this respect, and it is appropriate to be testing what candidates can do with data rather than how well they remember facts and figures.
8. **Check the timing.** You'll sometimes find that it takes you an hour to answer a question for which candidates have only half an hour. Assessors setting problem-type questions for students often forget that familiarity with the type of problem profoundly influences the time it takes to solve it. Students who get stuck on such a question may end up failing the exam more through time mis-management than through lack of subject-related competence.
9. **Decide what the assessment criteria will be.** Check that these criteria relate clearly to the syllabus objectives or the intended learning outcomes. Make it your business to ensure that students themselves are clear about these objectives or intended outcomes, and emphasise the links between these and assessment. When students are aware that the expressed learning outcomes are a template for the design of assessment tasks, it is possible for them to make their learning much more focused.
10. **Work out a tight marking scheme for yourself.** Imagine that you are going to delegate the marking to a new colleague. Write it all down. You will find such schemes an invaluable aid to share with future classes of students, as well as colleagues actually co-marking with you, helping them to see how assessment works.
11. **Proof-read your exam questions carefully.** Be aware of the danger of seeing what you *meant*, rather than what you actually *wrote*! Even if you're very busy when asked to check your questions, a little extra time spent editing your questions at this time may save you many hours sorting out how to handle matters arising from any ambiguities or errors which could have otherwise slipped through the proof-reading process.

Designing marking schemes

Whether you're marking exam answers or students' assignments, the time spent making a good marking scheme can save you hours when it comes to marking a pile of scripts. It can also help you to know (and show) that you are doing everything possible to be uniformly fair to all students. As your marking schemes will normally be shown to people including external examiners and quality reviewers, it's important to design schemes in the first place so that they will stand up to such scrutiny. The following suggestions should help:

1. **Write a model answer for each question, if the subject matter permits.** This can be a useful first step towards identifying the mark-bearing ingredients of a good answer. It also helps you see when what you thought was going to be a 30-minute question turns out to take an hour! If you have difficulties answering the questions, the chances are that your students will too! Writing model answers and marking schemes for coursework assignments can give you good practice for writing exam schemes.
2. **Make each decision as straightforward as possible.** Try to allocate each mark so that it is associated with something that is either present or absent, or right or wrong, in students' answers.
3. **Aim to make your marking scheme usable by a non-expert in the subject.** This can help your marking schemes be useful resources for students themselves, perhaps in next year's course.
4. **Aim to make it so that anyone can mark given answers, and agree on the scores within a mark or two.** It is best to involve colleagues in your piloting of first-draft marking schemes. They will soon help you to identify areas where the marking criteria may need clarifying or tightening up.
5. **Allow for 'consequential' marks.** For example, when a candidate makes an early mistake, but then proceeds correctly thereafter (especially in problems and calculations), allow for some marks to be given for the ensuing correct steps even when the final answer is quite wrong.
6. **Pilot your marking scheme by showing it to others.** It's worth even showing marking schemes to people who are not closely associated with your subject area. If they can't see exactly what you're looking for, it may be that the scheme is not yet sufficiently self-explanatory. Extra detail you add at this stage may help you to clarify your own thinking, and will certainly assist fellow markers.
7. **Look at what others have done in the past.** If it's your first time writing a marking scheme, looking at other people's ways of doing them will help you to focus your efforts. Choose to look at marking schemes from other subjects that your students may be studying, to help you tune in to the assessment culture of the overall course.
8. **Learn from your own mistakes.** No marking scheme is perfect. When you start applying it to a pile of scripts, you will soon start adjusting it. Keep a note of any difficulties you experience in adhering to your scheme, and take account of these next time you have to make one.

Marking students' work

Particularly when you're under pressure to mark a lot of work in a short time (exam scripts or students' assignments), the following suggestions may help you to do so fairly and efficiently:

1. **Be realistic about what you can do.** Put work for marking into manageable bundles. It is less awesome to have ten scripts on your desk and the rest out of sight than to have a large pile threatening you as you work.
2. **Devise your own system of tackling the marking load.** You may prefer to mark a whole script at a time, or just Question 1 of every script first. Do what you feel comfortable with, and see what works best for you.
3. **Avoid 'halo effects'.** If you've just marked a brilliant answer, it can be easy to go into the *same* student's next answer seeing only the good points and passing over the weaknesses. Try to ensure that you mark each answer dispassionately. Conversely, when you look at the *next* student's answer, you may be over-critical if you've just marked a brilliant one.
4. **Watch out for prejudices.** There will be all sorts of things which you like and dislike about the style and layout of students' work, not to mention handwriting quality in exam scripts. Make sure that each time there is a 'benefit of the doubt' decision to be made, it is not influenced by such factors.
5. **Recognise that your mood can change.** Every now and then, check back to work you marked earlier, and see whether your generosity has increased or decreased. Be aware of the middle-mark bunching syndrome. As you get tired, it feels safe and easy to give a middle-range mark. Try as far as possible to look at each script afresh.
6. **Take account of the needs of second markers.** If someone else will be double marking the work, don't make written comments on the scripts themselves, to avoid prejudicing the judgement of a second marker (unless of course photocopies have already been made of each script for double marking).

Making the most of feedback to students

It used to be the case that there were two main ways of giving students feedback on their work:

- Written (handwritten) comments on students' work
- Face-to-face feedback, where tutors discussed students' work with them, individually or in small-group tutorials.

Although these two methods are still in use, in many disciplines there are just too many students needing too much feedback for either process to be practicable any longer. Fortunately, word-processing technology and communications technologies have extended our repertoire of methods of giving students written feedback. We can now choose from options including:

- Statement banks, from which we can draw often-needed feedback explanations from a collection of frequently used comments which apply to the work of many students, and stitch these comments together to make a composite feedback message to individual students.
- Emailing feedback directly to students so that they can study our feedback in the comfort of privacy at their computers.
- Building an overall general collection of feedback comments to the class as a whole, based on common errors and frequent difficulties, posting this on an electronic discussion board which each student can view, and then emailing individual students only with any specific additional feedback they need.
- Using assignment return sheets, where the feedback agenda has already been prepared (for example based on the intended learning outcomes or the assessment criteria for the assignment), enabling us to map our feedback comments to students more systematically.
- Creating an overall feedback report on a task set to a large group of students, covering all the most important mistakes and misunderstandings, referring individual students to the sections relevant to their own work, and adding minimal individual feedback to students, addressing aspects of their work not embraced by the general report.
- Model answers: these can show students a lot of detail which can be self-explanatory to them, allowing them to compare the model answers with their own work and see what they've missed out or got wrong.
- Giving feedback in a lecture, allowing us to cover all the most important points we need to make, and also allowing students to see how their own work compares with that of their fellow-students.
- Using the 'track changes' facilities in word-processing packages to edit students' electronically-submitted essays and reports, so they can see in colour the changes we've made to their work at the click of a mouse on their own screens. This sounds complex, but in practice can be a very quick way of giving a lot of detailed feedback, and the feedback is in exactly the right place amid their words, not in a margin or over the page.

Feedback to students should be:

1. **Timely – the sooner the better.** There has been plenty of research into how long after the learning event it takes for the effects of feedback to be significantly eroded. Ideally feedback should be received within a day or two, and even better almost straightaway, as is possible (for example) in some computer-aided learning situations, and equally in some face-to-face contexts. When marked work is returned to students weeks (or even months) after submission, feedback is often totally ignored because it bears little relevance to students' current needs. Many institutions nowadays specify in their Student Charters that work should be returned within two to three weeks, enabling students to derive greater benefits from feedback. When feedback is received very quickly, it is much more effective, as students can still remember exactly what they were thinking as they addressed each task.
2. **Personal and individual.** Feedback needs to fit each student's achievement, individual nature and personality. Global ways of compiling and distributing feedback can reduce the extent of ownership that students take over the feedback they receive, even when the quality and amount of feedback is increased. Each student is still a person.
3. **Articulate.** Students should not have to struggle to make sense of our feedback. Whether our messages are congratulatory or critical, it should be easy for students to work out exactly what we are trying to tell them. They should not have to read each sentence more than once, trying to work out what we are saying.
4. **Empowering.** If feedback is intended to strengthen and consolidate learning, we need to make sure it doesn't dampen learning down. This is easier to ensure when feedback is positive, of course, but we need to look carefully at how we can best make critical feedback equally empowering to students. We must not forget that often feedback is given and received in a system where power is loaded towards the provider of the feedback rather than the recipient – for example where we are driving assessment systems.
5. **Manageable.** There are two sides to this. From our point of view, designing and delivering feedback to students could easily consume all the time and energy we have – it is an endless task. But also from students' point of view, getting too much feedback can result in them not being able to sort out the important feedback from the routine, reducing their opportunity to benefit from the feedback they need most.
6. **Developmental.** Feedback should open doors, not close them. In this respect, we have to be particularly careful with the words we use when giving feedback. Clearly, words with such 'final language' implications as 'weak' or 'poor' cause irretrievable breakdowns in the communication between assessor and student. To a lesser extent, even positive words such as 'excellent' can cause problems when feedback on the next piece of work is only 'very good' – why wasn't it excellent again? In all such cases it is better to praise exactly what was very good or excellent in a little more detail, rather than take the short cut of just using the adjectives themselves.

Maximising learning payoff through feedback

The following suggestions are adapted from Race (2005) and aim to give you some practical ways in which you can increase the learning payoff caused by your feedback to students.

1. **Provide students with a list of feedback comments given on a similar assignment prior to them submitting their own.** You can then ask students, for example in a large-group session, to attempt to work out what kind of marks an essay with specific comments might be awarded. This helps them to see the links between feedback comments and levels of achievement, and can encourage them to be more receptive to critical comments on their own future work.
2. **Let students have feedback comments on their assignments prior to them receiving the actual mark.** Encourage them to use the feedback comments to estimate what kind of mark they will receive. This could then be used as the basis of an individual or group dialogue on how marks or grades are worked out.
3. **Focus your comments on students' work, not on their personalities.** Comments need therefore to be about 'your work', rather than 'you'. This is particularly important when feedback is critical.
4. **Get students to look back positively after receiving your feedback.** For example, ask them to revisit their work and identify what were their most successful parts of the assignment. Sometimes students are so busy reading, and feeling depressed by, the negative comments, that they fail to see that there are positive aspects too.
5. **Ask students to respond selectively to your feedback on their assignments.** This could for example include asking them to complete sentences such as:

   "The part of the feedback that puzzled me most was..."

   "The comment that rang most true for me was..."

   "I don't get what you mean when you say..."

   "I would welcome some advice on...".
6. **Ask students to send you an email after they have received your feedback, focusing on their feelings.** In particular, this might help you to understand what emotional impact your feedback is having on individual students. It can be useful to give them a menu of words and phrases to underline or ring, for example including: exhilarated, very pleased, miserable, shocked, surprised, encouraged, disappointed, helped, daunted, relieved (and so on).
7. **Ask students to tell you what they would like you to stop doing, start doing, and continue doing in relation to the feedback you give them.** This is likely to help you to understand which parts of your feedback are helpful to specific students, as well as giving them ownership of the aspects of feedback that they would like you to include next time.
8. **Don't miss out on noticing the difference.** Comment positively where you can see that students have incorporated action resulting from your advice given on their previous assignment. This will encourage them to see the learning and assessment processes as continuous.

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Originally a scientist, for most of his career he has been involved in helping higher education staff to enhance their teaching, re-design their assessment processes and instruments, and develop ways of getting better feedback to more students in less time. Phil continues to travel around the UK (and far beyond) giving keynotes and running workshops on assessment, learning and teaching in further and higher education contexts.

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