About this publication

Teachers all remember their first year of tutoring, demonstrating or lecturing, and those first questions that went through their minds. Do I know enough? Do I look OK? Will the students keep turning up?

This book, adapted from an original text written by Phil Race, is designed to support postgraduate students who are beginning to teach. It is a useful guide for beginning teachers at all levels of higher education. It includes sections on small group teaching, lecturing and assessment. It will take new teachers beyond those novice questions we have all asked, and encourage them to reflect on, and improve, the learning that is taking place. How do I get the students to engage? How can I ensure that all of the students are participating? How do I know the students understand? It will also encourage postgraduate students to consider how their research and teaching and learning can complement each other. This second edition contains additional case studies.

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NDP National Development Plan 2007 - 2013
HEA Higher Education Authority An tÚdarás um Ard-Oideachas
An Roinn Oideachais agus Eolaíochta | Department of Education and Science
NAIRTL National Academy for Integration of Research, Teaching and Learning

NUI Galway OÉ Gaillimh
TRINITY COLLEGE DUBLIN COLÁISTE NA TRÍONÓIDE, BAILE ÁTHA CLIATH
ucc Coláiste na hOllscoile Corcaigh, Éire University College Cork, Ireland

IN AT THE DEEP END – STARTING TO TEACH IN HIGHER EDUCATION

Adapted from an original text by:
Phil Race, Leeds Metropolitan University

ADAPTED BY:
Anne Markey

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FOREWARD

Today, more and more focus is being placed on the ways in which research postgraduate students develop key generic and transferable skills in parallel with their research activities. Among these skills, the ability to teach and support the learning of others is key, partly because many postgraduate students wish to eventually pursue academic careers, but also due to the vital contribution of postgraduate students to the teaching mission of their university.

Teaching represents an excellent and rewarding opportunity for postgraduates to develop a whole range of other skills, from organisation to communication. Teaching can deepen academic understanding both of the postgraduate's subject and of the methods by which good teaching is conducted within their own discipline.

Undoubtedly, teaching a class or group can be a very daunting prospect. The aim of this book is to provide invaluable support to postgraduate students through practical advice and by sharing the experiences of other postgraduate student teachers. The benefits of the advice and experience captured in this book cannot be overstated, and it will be of assistance to anyone interested in preparing, understanding and improving their teaching.

We would like to thank the HEA for their support under the Strategic Innovation Fund for this project, and to thank and congratulate the project team and authors for producing such a helpful and important document.

Good luck and enjoy your teaching!

Pat Morgan — C. O'Sullivan — Alan Kelly

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GETTING YOUR ACT TOGETHER

The primary aim of most postgraduates is to complete their research and meet the requirements for the award of their degree.

Many postgraduates also find themselves facing the additional challenge of starting to teach. Postgraduates who find themselves in this position often experience complex challenges in their efforts to balance existing research commitments and new teaching responsibilities. Time management and careful planning are essential to ensure that workloads remain under control and deadlines are met.

Challenges facing postgraduates who find themselves "thrown in at the deep end of teaching" can be related to preparing for and planning teaching sessions, coping with presentations, assessing student work and providing feedback, or dealing with difficult situations. For many, within weeks or days of taking up teaching roles, there are tutorials to run, seminars to lead, lectures to be given, and marking of students' work to be done.

Postgraduates may face one or more of these prospects without having had an opportunity to learn how to tackle these challenges. Relevant staff development opportunities may exist, but not always in time for those critical first experiences of teaching or assessing.

The strategies outlined in this booklet can help postgraduates to face these challenges and balance their dual role as students and teachers. The aim of this book is to help you to cope well with those first few weeks teaching in higher education. It is hoped that this booklet will continue to be helpful as you venture further into your teaching.

Intended learning outcomes
(i.e. what you should be able to do after studying this booklet)

When you have used the ideas and suggestions in this booklet, you should:

- feel more confident and relaxed about starting to teach in higher education.
- prepare for, and conduct successfully, your first tutorials, seminars or laboratory classes.
- prepare for, and give your first lectures effectively and successfully.
- undertake your first elements of marking systematically, fairly and efficiently.
- give useful feedback to your students, to help them learn successfully.
- continue to develop your teaching and assessing practices systematically and professionally.

Balancing teaching and research

The opportunity to become involved in teaching is one that is welcomed by most postgraduates, regardless of whether or not they intend to pursue an academic career at the end of their period of study. Teaching is a social activity, which can lessen the sense of isolation that is often experienced by postgraduates involved in individual research. It brings postgraduates into contact with undergraduate students and with fellow postgraduates who are also involved in teaching, as well as with the academic and administrative staff who are involved in the delivery of undergraduate programmes.

Balancing postgraduate research with teaching is a challenging task, and it is one that you should consider and discuss with your supervisor, fellow postgraduates and teaching staff, preferably before you commit yourself to class contact hours. It helps to be organised. Draw up a schedule for your research so that you can get a clear idea of the extent of your existing commitments and see how many hours you will have available to devote to planning and delivering your teaching sessions.

One hour's teaching may involve several hours of preparation if this is the first time you have covered the material. Even if you are familiar with the content of the teaching session, it will take some time to plan it and to organise activities and handouts to support the learning outcomes of the session. You may also need to allow time for setting or marking assessments, and for providing feedback to your students on those assessments.

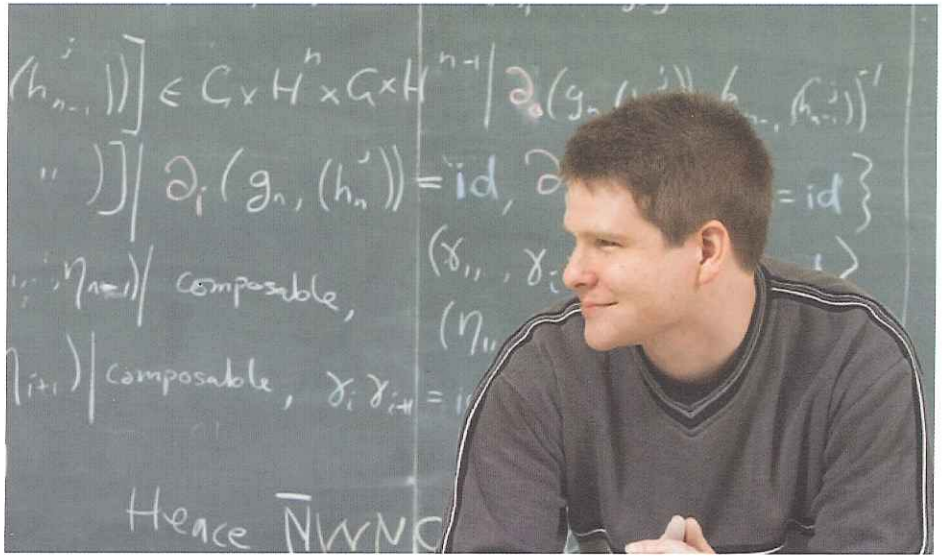
Identify the courses whose content is most familiar to you, and, if possible, opt to teach these. If you are asked to teach a course which is outside your area of expertise, and that will require large amounts of ongoing preparation, think carefully before accepting or rejecting the request. You may feel that you have to say yes because it is expected, or you may feel honoured to have been asked, but delay responding until you are sure that you will have the time available to prepare adequately for teaching, without letting your research suffer inordinately. Be prepared to voice your concerns if sufficient time will not be available for you to prepare classes adequately.

> "demonstrating experiments and explaining to the students what is going on is a great way to consolidate my own understanding..."
> postgraduate student comment

Once you have drawn up a schedule for your research and teaching, think about how your research can inform your teaching and how your teaching can inform your research. For example, identifying the 'blocks' that interfere with writing up your research can help you advise students on how to avoid similar difficulties that they may face in producing written assignments. In the same way, reading student essays can tell you a lot about how to approach your own writing.

Preparing presentations for use in teaching sessions will enhance your communication skills, making conference presentations of your research seem less daunting. Similarly, helping students to identify and cope with issues that confuse them will help you to identify those areas in your own research that may require clarification.

Finally, once you start teaching, keep records and notes on all sessions so that you have resources to consult next time.



Isn't knowing my stuff enough?

Postgraduates usually have considerable expertise and experience in the subject matter of their particular disciplines. Postgraduates new to teaching in higher education have often had some experience of working with students, although perhaps on an informal basis. When teaching first becomes a significant part of your work, it can seem a rather daunting prospect. You may face a group of people who regard you as an authority in your area, or have 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 forever, and to glide effortlessly through the processes of preparing lectures, planning tutorials and seminars, and assessing students' work. But most will tell you that knowing your subject material is only a relatively small part of helping students to learn that same material.

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 to you, and you may be surprised how long it can take to plan a tutorial or to put together a lecture on a topic you've never studied directly before. Perhaps it will be a topic that you have even managed to avoid so far!

A CHALLENGE

I was a first year PhD student in the Drama department when a staff member asked if I would teach a first year undergraduate course in multimedia technology. This is not my area of expertise, but I agreed because teaching is part of my funding requirement and because I wanted to accommodate my department.

There were thirty undergraduate students in the class. I got some training in Photoshop from our internal computer services unit. Building on this training and focussing on the interests of drama students, I drew up a class plan to rehearse various Photoshop skills and produce a poster for a play at the end of term.

As I began to teach the class, my plans had to change. The reality was that I spent most of my time working with a small number of students daunted by the use of computers, while giving general exercises to the rest of the class. Some advanced students were bored. How could I accommodate the different learning levels?

WHAT WOULD YOU HAVE DONE?

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 from someone who is still around to show you the ropes. But sometimes, you may find yourselves taking on an established course or module when there is no-one around to answer your questions.

You may have access to relevant staff development or training. But in reality you may have to get started in your teaching before the training covers the topics you need.

It is good practice to discuss your concerns with staff. However, you might want to try and sort things out on your own, or you might not want to share your concerns or worries with colleagues or mentors. In that case, you may wish to focus on the sections in this book which address frequently asked 'what can I do when...?' questions.

Before getting into the main part of this book, it could be useful for you to complete the checklist overleaf for small group teaching, or the one on page 34 concerning large group teaching, to establish where you are now, and your immediate priorities. Don't worry if completing this checklist makes you feel that there are too many challenges. This book aims to help you with all of them. The first column is for 'Doesn't apply to me' – in other words, it is for all those challenges which aren't yours – not yet at least!

"Group learning is a dynamic process... the more lively and creative it gets, the more know-how you need to steer the efforts of the group in a productive direction."
postgraduate student comment

SMALL GROUP TEACHING

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

The most significant reasons for using small group teaching are the benefits to students that lie beyond curricula expressed through stated learning outcomes. These are the emergent learning outcomes that help students to equip themselves with the skills and attitudes they will need for the next stages of their careers and lives.

Within the less formal setting of a small group, students are given an opportunity to deepen and extend their understanding of material introduced in lectures. By asking or answering questions, making presentations, and trying things out for themselves, students are encouraged to consolidate what they have learned through coursework and extra reading. They also get the chance to develop communication and critical thinking skills in a supportive learning environment.

Working in small groups allows students to acquire a wide variety of interactive and collaborative competencies, which will prepare them for employment or further research on completion of their degree. As these skills are not discipline specific, effective small group teaching can make an important contribution to the overall development of individual students.

Where am I now? (insert date)

Question	Doesn't apply to me	Not yet	Don't know	Yes	Date needed	Planned action
Have I got tutorials/ lab demonstrations to prepare?						
Do I know roughly how many tutorials/ lab demonstrations and how many students I have?						
Do I know where these fit into the overall module or course?						
Am I giving the associated lectures myself? If not, do I know who is?						
Do I know what the tutorials/ lab demonstrations are intended to cover?						
Do I already know the subject matter?						
Have I got seminars to lead?						
Do I know roughly how big the seminar groups will be?						
Will I be involved in setting assessments?						
Will I have marking to do?						
Have I already got experience of marking students' work and giving them feedback?						
Approximately how many assignments will I have to mark?						

Small group teaching opportunities include:

- listening to ideas of others sympathetically and critically.
- critically assessing and adjusting your own ideas.
- building on the existing work of others.
- acknowledging differences.
- respecting different viewpoints.
- working in teams.
- coping with the normal challenges of working with other people.

Facilitators of small group teaching sessions also aim to provide their students with opportunities to increase their knowledge of their particular discipline and of the specific skills associated with that discipline. They aim to help students to learn by doing, often by practising or applying things that have been covered in lectures, and by helping them to make sense of what they have learned elsewhere. Because progress in each discipline depends on mastery of distinctive types of knowledge, various types of small group formats are used in different subject areas, and at different stages of undergraduate study.

Laboratory/field demonstrations

Laboratory and field demonstrations are used in a wide range of disciplines, including the physical, biological and earth sciences, in engineering, and in some of the social sciences. In general, they aim to promote students' understanding of the methods of scientific enquiry through experiments or problem-solving activities. Active learning is encouraged through observation and guided experimentation.

Demonstrations give students the opportunity to learn by example and by practice, and help students to understand why they are doing what they are doing. Demonstrations provide students with the chance to ask questions, undertake experiments, carry out project work and tackle problem-solving exercises. They get the chance to apply the theory and methodology of a discipline in practical situations. By providing hands-on experience, demonstrations encourage students to appreciate the methods and ethos of practitioners in their discipline. They also help students to develop a range of skills such as observation, measurement, reasoning, working in teams, note-taking and reporting.

Postgraduate demonstrators, as they guide students through the various stages of setting up, working through, recording and analysing the results of their experiments and surveys, are at the front line of teaching. They often serve as role models.

The role of the demonstrator demands flexibility as they may simply be present to assist students and answer queries without being involved with setting up the practical, or they may be in sole charge of a group, and entirely responsible for the equipment used in the session and the assessment of the work carried out. Regardless of the degree of responsibility involved, the demonstrator is one of the most valuable resources available to students.

Seminars and tutorials

These terms are sometimes used interchangeably for small group sessions. However, strictly speaking, a seminar is meant to be a student-led small group session where, for example, one or more students give a short presentation, then answer questions and finally open up discussion on a pre-assigned topic.

The tutor's main responsibility is as a facilitator or chairperson. Very often, the seminar format is reserved for the later stages of undergraduate study, as it works best when students know something about the subject area and have become used to playing an active role in their own learning.

Tutorials come in many shapes and sizes, from one-to-one 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 take the form of problem-solving classes, where small groups of students work through quantitative problems either individually or collaboratively, guided by the tutor, and helped-out when necessary. Because of the versatility of the tutorial format, tutorials can be used to promote learning at all stages of the undergraduate experience.

All forms of small group teaching rely on communication and participation. The responsibility of the tutor is to create a good learning environment so that students can become responsible for their own learning. This book will help you to ensure that the students in your groups consolidate and extend their learning beyond what they could acquire from individual study.

What might go wrong if there was no small group teaching?

Where small group teaching has to be discontinued, the following problems might occur:

- increased drop-out and failure statistics, because students would lack opportunities to get help with their difficulties.
- students would be less aware of how well (or how badly) their learning was progressing, missing out on small group contexts that could allow them to gain a great deal of feedback from each other.
- more time would be spent helping students who make appointments for one-to-one help with particular problems, with different students presenting the same problem many times over.
- there would be more interruptions to the flow of large group teaching, as 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".
- increased risk of students succeeding satisfactorily in written assessment scenarios, but not gaining the mastery of the subject matter that comes from discussion and reformulation through explanation.
- increased risk of lecturers remaining unaware of significant problems experienced by students until the problems have turned into assessment failures.

A few words about diversity in small groups

There is no such thing as an average, representative student, just as there is no such thing as an average, representative postgraduate researcher who teaches. We all differ in many respects, including gender, marital status, family status, sexual orientation, religion, age, disability, race or ethnicity.

Because learning in small groups depends on effective communication, the person responsible for each group has to take diversity into account when planning the sessions.

What works well with one group may not work well with another, so the person responsible must be prepared to be flexible and to adapt lesson plans to meet the requirements of a particular group, in a particular set of circumstances. It is always good to plan in advance, but it is even better to be prepared and willing to modify that plan if necessary. It helps to plan a range of activities or prepare a list of prompts so that you can move on purposefully if one element of the plan doesn't work well.

Disability is one aspect of diversity that must be kept in mind when planning teaching sessions. Planning for diversity helps to accommodate learning differences, not to water down academic standards.

To ensure that students with a disability have complete and equitable access, you might find it useful to liaise with the Disability Support Office in your university or to get a copy of the DAWN Handbook 2008.

At a very basic level, when preparing handouts or notes for distribution at your classes, lay out the information carefully and use left-justified clear print (such as Arial, Verdana, Trebuchet or Tahoma) in at least size 12 font.

Simple measures, such as making print legible, require little effort on behalf of the teacher but can make a huge difference to the students.

Five tips on planning small group sessions

1. **Talk to colleagues.** Don't be afraid to ask for advice. Talk to other postgraduates who have taught this course before and ask them to tell you what worked well in the past. Check if there are any pitfalls that you need to look out for. Have a look at past assessments to get an idea of the approaches your students will have to take to the material provided. If you are providing small group teaching sessions to complement a lecture series, get copies of the course description, the lecture schedule and the lists of required and recommended readings. Talk to the lecturer involved and be confident that you are clear about what students are expected to know at the end of the combined series of lectures and small group sessions. If possible, attend the lecture series.
2. **Check out the room.** Before you make any major decisions about how you will cover major course content, it is a very good idea to check out the accommodation, as this will inevitably have an influence on your teaching sessions. Is it possible to move the seats around so that you can create a welcoming circular layout rather than an off-putting series of rows? Is there a white board or flip-chart that you can use or ask the students to use? Is there an overhead projector available? If you are planning to use Powerpoint, is the room properly equipped? Of course, checking out the accommodation also has the advantage of ensuring that you know where to go on the first day of class!
3. **Decide on learning outcomes.** Work out exactly what students should be able to do at the end of the series of small group sessions. Then work your way back to plan what you want students to achieve during each session. Don't cover anything in a small group session if you can't think of the intended learning outcome associated with it. Make sure that the learning outcomes you draw up are all achievable, assessable and clearly stated, so that students will know what is expected of them.
4. **Identify diverse teaching strategies that will help your students achieve those learning outcomes.** Activities that can be used in small group learning settings include open discussion, hands-on experimentation, problem-solving, case studies, student presentations, sub-group projects, role play – the list goes on and on. Varying your teaching strategies will make the sessions more interesting and rewarding for all involved and help to ensure that you cater for the diverse needs and learning styles of all your students.
5. **Draw up a flexible schedule for the series of sessions and a flexible plan for each of them.** Students are far more likely to be prepared for your classes if they know well in advance what work they have to do for each. Providing a schedule at the first session means that you can make the overall learning outcomes clear at the outset and set the ground rules about the level of preparation and participation you expect. Having a flexible plan for each session means that you will be able to guide the class towards achieving the desired learning outcomes, but also has the advantage of enabling you to follow the guidance of the students if your plan needs modification.

How students somtimes 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 which can get in the way. We will return to some of these problems later in the 'what can I do when...?' sections. Difficulties that students can cause include:

- **Students who don't take it seriously.** Students often seem to regard lectures as more important than seminars, demonstrations or tutorials. This is sometimes our fault – if we don't seem to be taking small group teaching seriously, students are quick to pick up the vibrations.
- **Students who don't turn up.** This follows on from the problem above, but it makes our job all the harder if we don't know until the last minute what size group we are likely to be working with.
- **Students who come unprepared.** They turn up without having done the pre-reading or preparatory work which we set in advance of the small group sessions.
- **Students who tend to dominate.** This can be tiresome for their group-mates. Change group membership regularly, so that the dominating students are spread around.
- **Students who 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 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.
- **Students who fall out with each other!** Conflict can arise in small group contexts, particularly in cases where group work is assessed and contributions have been uneven.

SCENARIO

"Jurisprudence involves analysing different schools of philosophy underlying the nature and role of law in society. It is an ideal subject to involve and engage students because they can draw not only on their legal education so far, but also their life experience and personal opinions.

In my tutorials I encountered the issue of dominant participants contributing to the discussion. These students often contributed meaningfully, understanding the benefit of the subject, while others dismissed it on the basis that jurisprudence is not "hard core" law.

Some students sighed loudly whenever contributions were offered. I wanted to create an atmosphere of mutual respect in which the heterogenous group could provide their own accounts of the theories being discussed."

WHAT WOULD YOU HAVE DONE?