

A practical guide to clinical teaching

Oliver Kayes considers the options

Clinical teaching is an integral part of the working lives of medical staff in hospital and in primary care. *Good Medical Practice* outlines the obligation and commitment for all medically qualified practitioners to teach both postgraduate trainees and undergraduate medical students.¹ This principle can be extrapolated to include other medical professionals, from nursing staff and physiotherapists to pharmacists and biotechnicians. However, teaching is an unfamiliar skill and many will recall their reticence when asked to teach at short notice or the trepidation of standing in front of a group of strangers eager to learn (or not). We have to balance our clinical commitments with the responsibility of delivering high quality learning experiences. In this article I review the skills and techniques that can optimise learning and avoid the panic of last minute teaching sessions.

Identifying learning objectives and the target audience

Establishing a link with your students is crucial for developing and fostering a keen teacher-learner relationship. We all remember the woeful underperformers from our own undergraduate days, but too often we fall into the same trap delivering poor and uninspiring sessions. Understanding the basic curriculum and identifying the key learning objectives for a session will help establish the levels of teaching required, thus keeping the students involved in the learning tasks. By referring back to key objectives, we can help to reinforce the important facts and identify areas of misinterpretation or error.

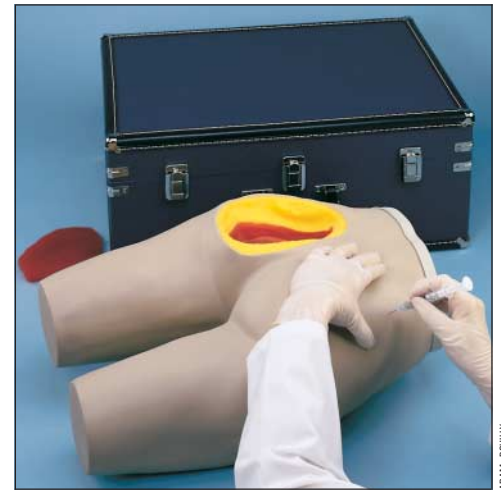
Preparation

Dedicated teaching and preparation time is rarely a luxury available to clinicians, but it is essential for high quality teaching. Taking time to identify the curriculum through the local university network or the director of clinical studies will help to focus teaching delivery. Excellent teachers take time to prepare in advance—spontaneous and “off the cuff” teaching is incredibly difficult. Time spent constructing PowerPoint presentations or collecting simple teaching resources (such as case scenarios, interesting investigations, and worksheets) will pay dividends, especially if you are caught off-guard and need to teach at short notice. Ultimately, careful preparation will be time efficient, allowing you to teach from a firm foundation.

Teaching techniques and scenarios

Bedside teaching

Historically this has been a key area of teaching clinical medicine as it promotes student-patient contact and the necessary skills of patient examination and diagnosis. Bedside and outpatient sessions present a wide variety of teaching opportunities. These include standard examination techniques, interpretation of investigations, and making a diagnosis. Alternative strategies entail understanding multidisciplinary approaches to patient



care or practising communication skills.² Delivering teaching in this setting presents a number of challenges, so it is important to establish early on the progression and aims of the session. Identify tasks for each student to keep everyone involved and interested (box 1). Familiarising yourself with the patient and his or her condition is imperative.

Small group teaching

Tutorial based sessions allow a more in-depth approach to a topic, without the added distractions of a busy ward or outpatient department. Paying attention to the teaching environment and ensuring that the session is as interactive as possible helps to deliver key points. Seating students in groups, with a clear view of any teaching aids (such as a flip chart, projector screen, and teacher), maintains interest levels and allows discussion and debate between groups. Setting tasks for students, as pairs or in groups, to brainstorm particular topics or ideas helps to promote individual thinking and interpersonal communication. In this way, we can remove the didactic component of any tutorial session and thereby integrate all members of the group to the learning task.

Lecture

This is another traditional teaching method and one that remains extremely effective, if used correctly. Lecturing enables the delivery of a large amount of information to bigger audiences compared with small group teaching. This implies that the teacher-student interaction is diluted, and thus maintaining interest levels and the assimilation of information is more difficult. Lecture based learning follows a typical pattern, with students paying most attention at the beginning and end of sessions. Delivery of information should therefore match these patterns, highlighting key learning points at the crucial times and avoiding fervent note taking by the use

Box 1: Keeping the students awake

- Pick one student to do the task, another to critique, and a third to summarise
- Ask them to watch but also to list different clinical signs or important features from the history and examination
- Warn students that questions about the case are following
- Work in pairs or groups to formulate a management plan

More important than the curriculum is the question of the methods of teaching and the spirit in which the teaching is given.

Bertrand Russell, logician and philosopher, 1872-1970

Box 2: Topics covered in the clinical skills laboratory

- Phlebotomy and intravenous cannulation
- Urinary catheterisation (male and female)
- Breast and rectal examinations
- Ear, nose, and throat examinations
- Inhaler techniques
- Suturing and knot tying
- Ophthalmological examination

Box 3: Tips on teaching

- Watch colleagues lecturing to develop your own style
- Offer to critique and feed back, allowing open appraisal
- Keep a set of interesting cases, radiographs, and electrocardiograms for on the spot teaching
- Lucky dip: students pick items of medical equipment from a bag and describe their use or function
- Teach with enthusiasm and passion
- Keep it simple and develop from fundamental principles

of high quality printed handouts. The advent of improved audiovisual equipment and cross site communications has seen the development of electronic lecturing (e-lecturing),³ which allows even greater dissemination of teaching programmes. However, new skills are required to optimise this approach.

Clinical skills laboratory

The use of skills laboratories has increased, especially within the undergraduate domain and with the development of objective structured clinical examinations. They promote the safe practice of procedures in an open teaching environment before engaging in patient contact. Students are more confident learning the techniques in this setting, and after appropriate evaluation can implement their new skills in the clinical setting. It is important to identify the individuals concerned with this teaching service at your local hospital and to familiarise yourself with the equipment and techniques. Synthetic apparatus lacks realism but allows for repeated practice and reinforcement of techniques. Box 2 lists the common apparatus and topics covered in these sessions.

Summary

The advent of Modernising Medical Careers and the formation of the Postgraduate Medical Education and Training Board will have ramifications with regard to clinical teaching and training within specialties. Under-

graduate education is moving away from traditional teaching approaches with smaller teaching sessions, problem based learning, and cross site electronic lecturing. To accommodate these changes in education, it is important that teachers within the medical system develop and harness their own professional development.

Relatively few doctors receive formal training in the practical skills of clinical teaching and it is often taken for granted that experience and reputation will compensate for gaps in formal training. Those who are interested in improving and developing their teaching skills can attend a variety of courses and workshops run by their local education and postgraduate departments. Studying for a diploma of higher education (a certificate of advanced study in learning and teaching or a postgraduate medical education qualification) is also a highly rewarding. ■

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- 1 General Medical Council. *Good medical practice*. 3rd ed. London: GMC, 2001. www.gmc-uk.org/guidance/good_medical_practice/index.asp.
- 2 Ramani S. Twelve tips to improve bedside teaching. *Med Teach* 2003;25:112-5.
- 3 Diaper D. One person and their dog performing electronic lecturing. In: Jin Q, Li J, Zhang N, Cheng J, Yu C, Noguchi S, eds. *International conference on information society and the 21st century: emerging technologies and new challenges*. DIYEL, Bournemouth University, UK.

tips on . . .**Oral exams****Do**

- Be courteous
- Introduce yourself
- Dress well and sit confidently with a good posture
- Maintain good eye contact with all the examiners during your viva
- Speak up but do not speak too loudly. You need to sound logical and confident but not overconfident
- Answer the question in a systematic manner, slowly and clearly
- Do not rush to answer a question even if you know it. Start from basics and build up. This can be achieved more easily using headings and classifications
- Be honest and say if you do not know an answer
- Most important—relax, relax, relax.

Don't

- Guess, lie, or give unrequested information
- Argue or be too rigid, even if you convinced that you are right
- Mention rarities first—always start with simple, common things
- Hesitate or stay blank if you do not know an answer; politely tell the examiners that you do not know the answer so that they can proceed to the next question
- Buy time by repeating a question or reply with another question
- Get stressed or flustered if you think you did not answer a question well. As far as possible blank it out and attempt to look forward to the next question.

Finally

- Remember, examiners have been in your shoes once, and most of them, like everyone else, prefer to pass rather than fail candidates
- One wrong answer does not give you a fail. Examiners assess not only your knowledge but also your presentation
- Prepare well, as there is no substitute to hard work. ■

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