Chapter 5
Learning and Teaching

A doctor's life is often one of continuous learning. With the progress of Medicine it is important to stay up to date with developments and advancements. New roles with career progression means that further knowledge has to be acquired, new skills (clinical or non-clinical) to be mastered.

As doctors we learn from didactical teaching, whereby we are told or shown how to do things. We learn from discussions with colleagues and peers, through doing, and through teaching those around us. Each of these methods has its place and merits in the long journey of continuous learning.

Similarly, as doctors we aim to disseminate knowledge or pass on skills. We may thus find ourselves teaching other healthcare practitioners, medical students, junior doctors, peers or senior colleagues.

This chapter examines the various learning methods. Advice is given as how to make the most of each learning opportunity, and how to deliver well constructed, successful teaching. Advice is also given about preparing for post-graduate exams, assessing trainees, and organising medical courses.

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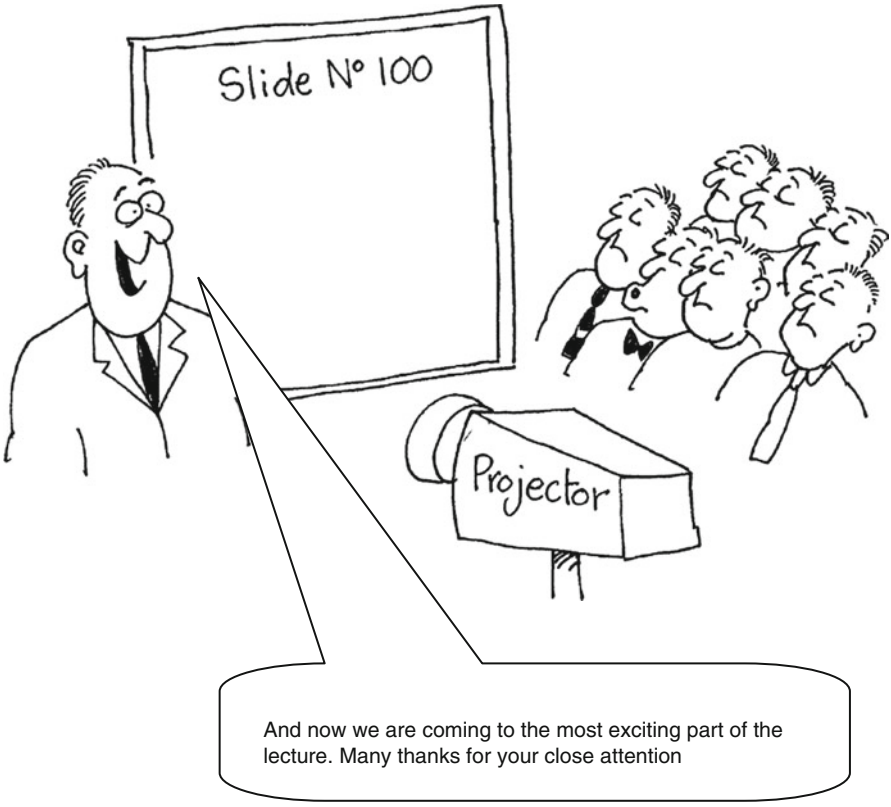
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And now we are coming to the most exciting part of the lecture. Many thanks for your close attention

Principles of Learning and Teaching

> Tell me and I forget. Teach me and I remember. Involve me and I learn
>
> Benjamin Franklin [1]

In learning and teaching consider the following principles:

- Individuals may have different learning preferences, that is particular ways of learning.
- Previous knowledge and experience can act as the platform for acquiring new knowledge.
- Different teaching methods exist, both active and passive.
- Learning and retention of new knowledge may be influenced by the teaching methods employed.
- There is a learning curve in acquiring a new skill.

Learning Preferences

Educationalists Rita and Kenneth Dunn proposed that a number of factors may influence the ability to learn [2, 3]. These factors may be environmental (environment of learning), sociological (whom we learn with), emotional (attitude to learning), physiological (how we engage with learning) and psychological (how information is processed). In considering physiological factors, learners may be described as:

1. Visual – preference for learning through seeing – pictures, charts, graphs, illustrations.
2. Auditory – preference for learning through listening – lectures, tapes, listening to someone explaining it, listening to own self repeating it.
3. Kinaesthetic or tactile – preference for learning through handling things, touching and feeling – practical workshops.

Not all factors are important for all individuals, and each learner may have a unique combination of preferences. You may recognise what type of learner you mainly are. Appreciating what type of learner you are is important, in trying to reach out for those learning tools and methods, that will allow you to maximise your learning efficiency, and hence play at your strengths.

When teaching, understanding your learners preferences could enable you to individualise the teaching methods you employ. However, if dealing with a large group of students, such an individual approach may be difficult. Nevertheless, by incorporating teaching methods which provide for several learning styles, you may influence more of your learners.

Experiential Learning

> The value of experience is not in seeing much, but in seeing wisely
>
> William Osler [1]

David Kolb, an American educationalist, believes that "learning is a process whereby knowledge is created through the transformation of experience" [4]. In the theory of experiential learning, Kolb described a four stage model of learning (Fig. 5.1). In the initial stage, we experience a learning event, and in the second stage we reflect on what took place and what we observed. In the third stage, we try to analyse and come up with a model as to what we learnt, whereas in the final stage, one plans how to act in the future based on the model or theory developed. This can then be applied in practise, leading to further encounters and experiences.

In Medicine, we often refer to the importance of gaining experience. We aim for gaining experience through volume, encounter of unusual cases, repetition of tasks, observations of events. Yet, as Kolb's cycle suggests, experience is not a passive process, one to be assimilated simply by our mere presence, but is an active process, requiring input and reflection on the learner's part.

The theory of experiential learning also suggests that learning is effective when based on previous experience. In trying to work out as what to do in a new situation, one can look back at previous experiences as a guide of further action. Principles acquired through participation in one event may help one to work out a solution, when faced with a new problem. Aim to learn principles and concepts that may allow you to work out the answer to a question or the solution to a problem, rather than simply trying to memorise and recall detailed facts.

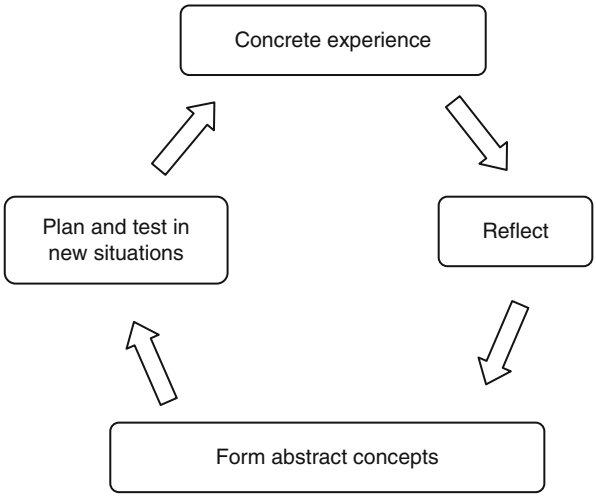

Fig. 5.1 Kolb's cycle of learning (Adapted from Kolb [4])

Learning Styles

Learning may be either passive or active. In passive learning, the learner acts as the mere receiver of transmitted information, whilst in active learning, the learner is a participating player. Three commonly used approaches for teaching, and hence learning, are the didactic, Socratic, and facilitative [5]:

- Didactic – passing on of information or facts, with very little participation on the learner's part.
- Socratic – mastered by the Greek philosopher Socrates, it describes a method whereby the teacher uses a step by step questioning, to help lead the learner towards the solution to a problem.
- Facilitative – the learners per se take an active role, in deciding as to what to be learnt, and the learning approaches to be used. The teacher facilitates, helps, and supports this learning environment. Problem based learning is increasingly used in medical education. Learners are given a clinical or other scenario based on which they identify areas to explore and set their learning objectives. Learners look for the information that will allow them to meet these objectives, and then meet and discuss this information as a way of learning. A facilitator may ensure that learners cover all expected areas, according to syllabus or curriculum, and do not deviate from what the scenario aims to achieve.

At different times you may use one or a combination of these learning styles, both when you are yourself learning, or as a teacher in trying to engage your students.

Pyramid of Learning

The Pyramid of Learning (Fig. 5.2), describes how the degree of retention varies according to the way we receive information (teaching methods). According to this, we remember 5 % of information gained from lectures, 10 % of what we read, 20 %

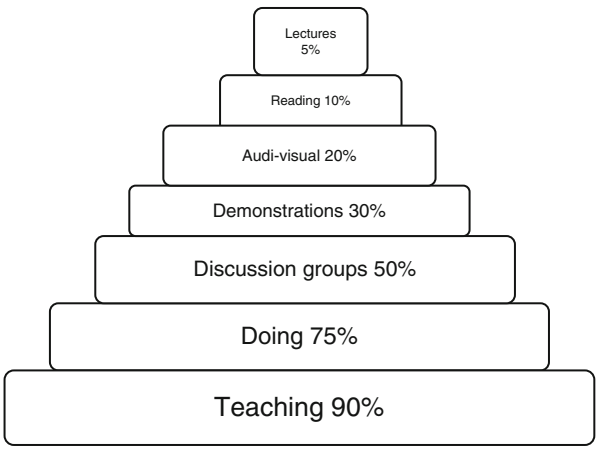

Fig. 5.2 Learning Pyramid – learning methods and retention rates (Adapted from Masters [6])

of information presented with audio-visual means, 30 % of what we see and hear in demonstrations, 50 % by participating in discussions, 75 % of what we do, and 90 % of what we teach [6].

The Pyramid of Learning is attributed to research by the National Training Laboratories for Applied Behavioural Sciences, USA, but with no published data to support the proposed proportions [7]. Even though the origin of the Pyramid and the actual proportions have been questioned, it demonstrates that the more actively we engage in learning, the more likely it is to retain new knowledge and information. Doing and teaching allows us to engage deeply with a learning event and hence retain knowledge better, than when simply spoon fed with information.

Recognising the Learning Curve

Most skills, clinical, technical, or otherwise, have a learning curve. This curve essentially describes how performance varies with time, and with the accumulation of more and more experience.

A steep curve means that fast learning can be achieved over a short period of time, whilst a shallower curve requires more time to reach a plateau of effective performance (Fig. 5.3). It is important to recognise the relationship between the slope of the learning curve and the complexity of the skill to be mastered. It is a misnomer to refer to complex activities as ones that have a steep curve, as it is the difficult tasks that may take more time to acquire and hence have a more gradual

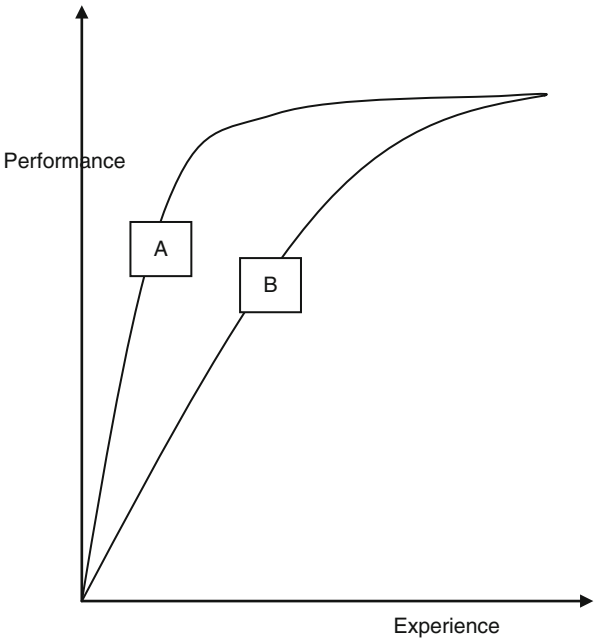

Fig. 5.3 Learning curve. Skill A has a steeper curve, but is acquired much faster than skill B

ascend. Easy tasks may be learnt more quickly, hence, giving a quick, steep rise, to skilful practise.

In acquiring a new skill it is important to recognise this curve. Be realistic as to how hard a skill is, and how much time is needed to acquire a new skill. When things do not go smoothly, appreciate that you may still be on your learning curve, and there is still potential for further learning. Appreciate that whilst ascending the curve, support from peers, colleagues or seniors may be needed.

Learning from Teaching Events

Certain behaviours may help you improve your learning experiences through different means of teaching (didactic, Socratic, facilitative) and also in different settings (lectures, courses, workshops, large group, small group, one to one teaching):

- Choose courses and other educational events wisely. Examine their contents, seek advice from colleagues or seniors as whether they are worth attending.
- Choose teaching events that will provide knowledge you can soon apply in practise, and can enhance your day to day performance.
  - If doing an endocrinology post in a medical rotation, attending a thyroid symposium may be of greater value than attending a heart auscultation course.
  - If doing a knee surgery post, attending an arthroscopic knee course may help you follow arthroscopic procedures or improve your day to day surgical skills, and be more relevant than attending a hand course.
- Do pre-course reading. Go prepared to get the most out of it. View the event almost like a revision, rather than initial learning. Have queries you need clarifying, questions you need answered. It may be a unique opportunity to meet and directly question the originator of a concept or other experts in a particular field.
- Revise what you learnt shortly after the event, when all is still fresh and clear in your mind.
- Make notes, either during or after the event, something concrete to refer to at a later stage.
- Learn simple concepts early, get the basics cleared first, before advancing on.
- Learn from colleagues, seniors and juniors alike. Do not concentrate simply on your trainer's professional title, but rather on their knowledge, message and skills.
- Set your learning needs. Make it clear as what you expect from an educational event, and give feedback if not up to standard.
- Enjoy learning. Look at questioning as thought provocation rather than uncomfortable interrogation.

Continuity of Care and Learning

Continuity of care refers to a stable, continuous relationship between patient and doctor. Continuity of care may improve patient satisfaction and enhance communication [8], but is also important in a doctor's learning and training.

Follow patients through. With reduced working hours and shift work, it is becoming more and more difficult to follow the journey of patients through the healthcare system. Yet continuity of care is a vital learning tool. Continuity of care may provide one of the most direct feedbacks you get in clinical practise.

- You admitted a patient with shortness of breath whilst on night shift. When next back at work, enquire as to what happened. Was your diagnosis of heart failure right? Was the treatment you started appropriate?
- You made a diagnosis in clinic and sent the patient for more tests. Did you get it right? What was the outcome of the investigations?
- You assessed a patient but the clinical findings were inconclusive. What did it turn out to be?
- You operated or assisted in an operation. Did surgery help? Did symptoms improve? Any post-operative complications? How did the patient do day by day whilst in hospital? How long did it take for the symptoms to get better?
- You reported the MRI scan of a patient's abdomen who then had surgery. What did the surgeons find, how did it relate to your interpretation of the scan?
- You referred a patient to the Emergency Department. What was the outcome? Could the patient have been managed in the community?
- You excised a skin lesion. Did the histological examination of the lesion confirm your clinical diagnosis?

Learning Through Simulation

The reduction of working hours, legislation fears, and targets for service provision, have reduced, in many settings, the learning opportunities encountered in clinical practise. Simulation refers to the artificial representation of a real life process [9]. Simulation can provide an invaluable tool, in preparing you in how to act when encountering a new situation, in preparing you for the real event, in allowing you to practise and develop your skills.

Pilots do not learn how to deal with in-flight emergencies only when in the cockpit, musicians do not learn how to play instruments only through live concerts, the military do not learn how to fight only when in battle, astronauts do not practise their landing gear only when on the moon. Why should doctors only practise our skills in real life situations?

Simulation may enable you to acquire new, and improve existing skills, whilst moving the learning curve away from the clinical environment, away from the patient. It allows you to make mistakes and learn from them, with no harm occurring. With simulation the "see one, do one approach" [10–15] to learning and experience becomes redundant. Amongst others, simulation may help in developing:

- Technical skills (life-support techniques, cannulation, urinary catheterisation, intubation, surgical procedures).
- Clinical examination skills (chest auscultation, breast, pelvic, rectal examination).
- Clinical management skills.
- Communication skills.
- Crisis management skills (crash call, failure of the anaesthetic machine, plane crash landing in nearby airport with many injured).
- Team working, people management, leadership skills.

Even if you do not have access to expensive high technology simulators, pristine manikins, or shiny simulating centres, you can still make the most of simulation. You may ask the representative of the company providing the bone fracture fixation plates to bring some saw bones to practise fracture plating. A trip to the local butcher may provide specimens to help your chest drain insertion techniques. Constructing and practising a crisis scenario may improve your team building skills.

Make the most of simulation, practise and practise again.

Learning in Training Posts

> Learning, regardless of how it is defined, is ultimately the responsibility of the learner, not the teacher
>
> Bob Kizlik [1]

In your training years you may work in formal or informal training posts. In making the most of such training posts, it is important to get to own your training. Set your goals, identify your needs, request the processes that will let you meet those needs. Have an initial, mid-attachment, and end of attachment meeting with your supervisor. Prepare for these and use them effectively.

- Initial meeting
  - Establish who is, or are, facilitating your training.
  - Help your supervisor to establish a clear understanding of your career stage, knowledge level, experience.
  - Identify areas that may have been highlighted in previous attachments, that need to be addressed.
  - Identify what you aim to get out of the post.
  - Explore learning opportunities – attending specialised theatre lists, attending chronic pain clinics.
  - Identify special circumstances, plans for holidays or study leave.
  - Agree to specific targets.
  - Know whom to contact if any difficulties.
  - Set days for middle and final meeting.
- Middle meeting
  - Assess progress
  - If things not progressing as you would expect bring this to your trainer's attention early. Raising such issues at the end of your post may help future trainees, but may not directly help you.
  - Assess achievements and identify further areas of improvement.
  - Contingency plan to meet original targets.
- Final meeting
  - Reflection of how the attachment went.
  - Complete all necessary paperwork on time.
  - Which training targets have you met.
  - What needs to be addressed in your next attachment.

Postgraduate Exams

> Examinations are formidable even to the best prepared, for the greatest fool may ask more than the wisest man can answer
>
> Charles Caleb Colton [1]

For many the primary aim at medical school was studying, learning, attending teaching, and passing exams, with some of us having to work on the side to help fund our studies. After graduating these roles often reverse. It is likely that most of you will be working, whilst at the same time having to study as part of continuous professional development, or for preparing and sitting postgraduate exams. Postgraduate exams are often in the form of written papers, demonstration of clinical skills or oral questioning (vivas). Each of these examination types may require different preparation and learning techniques. As the time available for studying is often limited, efficient exam preparation is essential. In preparing for postgraduate exams you may consider:

- Decide well in advance as to when to sit the exams. Factors to take into account are:
  - How well prepared can you be by the exam date?
  - What post will you be doing at that time? Is it likely to be a busy post? Is it going to be a job where you want to get as much clinical experience as possible or a quieter one where you can afford to take more time out for revision?
  - How many times are you allowed to take the exam? If there is no limit is it worth considering sit the exam as a form of practise? If there is a limit on times allowed should you not be sitting it until fully ready? Even with the best preparation exams may not go as planned. Better not sit an exam until there is a good chance of passing. Failing an exam is an uncomfortable experience, and may hinder morale and motivation for further preparation.
  - Give ample time to prepare for the exam. Try and put aside some time every day for revising. Leaving it all for the last 2 weeks might have worked in the medical school, but may not be the best option in postgraduate assessments.
- Passing exams is not just about knowledge but also about technique. Tailor your revision to the exam. Preparing for multiple choice questions, where detailed factual knowledge is essential, is different from preparing for a clinical viva where communication skills, ability to answer with confidence, and ability to give well constructed, structured answers are more important. If taking a clinical exam, are the examiners looking for demonstrating a structured examination technique or is making the correct diagnosis an essential requirement?
- Identify relevant exam related courses and apply for these well in advance, as popular ones are often oversubscribed. Look around as course quality may vary. The amount of learning such courses can provide may be invaluable.

- You may be highly competent and safe, in doing your day to day job, but that may not be enough for passing exams. Exams aim to test knowledge and skills required not only for commonly encountered scenarios but also for the unusual rare ones. Examine the syllabus to be tested and work though that in a systematic way.
- Speak to those who previously sat the exam. What questions did they get? How did they revise? Which courses did they find relevant and useful? Speak to those who flew through the exam, and those who failed it or encountered difficulties. What do they think went wrong?
- Inform your senior colleagues at work about your upcoming exam and ask them to quiz you and test you in clinics, ward rounds, and theatres.
- Ask your peers and seniors to let you know if they see any unusual or interesting clinical signs in clinic or ward.
- Service provision, learning, and exam preparation, are not mutually exclusive. Try and treat those clinical cases you encounter daily in your practise as an exam case. If you take a history and clinically assess a patient in clinic, try and do so as if you were in an exam. It is unlikely it will take much longer, and, if anything, it may make your clerking more structured. In presenting that case to your senior, do so as if talking to an examiner. In describing a radiograph use the approach you would use in an exam.
- Get in study groups. Find peers who are also preparing for the exam, and arrange to meet at regular intervals, share knowledge, discuss poorly understood topics, or examine patients in front of each other. Be prepared to give and receive feedback.
- Know your strengths and also weaknesses. When revising, concentrate on the things you are not good at, rather than on those you are confident. Concentrate on your weaknesses rather than your strengths. Breath of knowledge is as important as detailed knowledge in exams.
- Study exam related books.
- Access candidates' discussion forums on the internet. What questions were asked before?
- Consider taking a few days off work before the exam, to rest and focus your thoughts. Sitting an exam after a night on call, may not be the best option.
- If a clinical exam is organised at your hospital offer to help, even if it is still a long time ahead for you to do that exam. It may give you insight on how examiners think, what types of cases are chosen, how different candidates perform.
- Enjoy the revision. In the medical school you may have to study and pass exams in areas of Medicine which might not greatly interest you. Postgraduate exams are usually in an area you have chosen as a prospective career, and hence revising and getting better at it, should be enjoyable.

Postgraduate Degrees

As part of your postgraduate learning and training you may consider doing a post-graduate degree. A wide variety of options are available varying from Diplomas, to Masters, to Doctorates. Such degrees may be, amongst others, in a clinical, scientific, research, or teaching area. Postgraduate degrees maybe part time, or full time.

Reasons for doing a post-graduate degree:

1. Gain more knowledge in a clinical or scientific area that interests you.
2. There is a subject you are very passionate about and want to study in detail.
3. Gain research experience.
4. Develop skills not easily acquired in your working environment (teaching, managerial).
5. Improve your CV and aid career progression.
6. May be an essential requirement of your training program for career progression.

Consider carefully as to whether to undertake such a task, when you want to do it, and in what area. Postgraduate Degrees can offer an invaluable experience. Like professional exams, postgraduate degrees, may provide you with a qualification to stay with you for ever. Job titles and appointments may not exist or have the same weight in different parts of the world, as degrees do.

Teaching

> Those who know, do. Those that understand, teach
>
> Aristotle [1]

As a doctor you may be involved in teaching. You may be involved in bed site teaching, formal teaching, one to one, small group teaching, large group teaching. If taking on a teaching role consider the following:

- Understand the aims of your learners, what they are aiming to gain, and gear the teaching to that. One way, is asking the students at the beginning what they are trying to get out of the session, as a guide of what you should aim to present.
  - If you are teaching at an exam revision course the attendants are likely to be looking at potential exam questions and answers, rather than a long detailed explanation of facts that are not part of the exam syllabus.
  - If you are teaching fractures to Emergency Department juniors it is likely they will be looking for methods of splinting and plastering for when fractures first present, rather than the details of complex surgical fixation.
- Establish what the starting knowledge of the learners is and build on that. If the learner is not aware of the basics and principles, there is little scope jumping to the complex stuff.
- Engage the audience through questions, or assigned tasks. Try and include all, not just the very proactive ones. If you are to question go round the group, rather than concentrating on the person offering the answer every time.
- Try and teach principles rather than mere facts. Help the learner to work out the answer. Bring examples from their previous experiences and use them to help solve new problems.
- Respect those you are teaching, do not make them feel uncomfortable for lack of knowledge. Get to know their names, level of training, get an interest in them.
- Consider testing, both prior to and after delivery of teaching, to see what the learners have gained.
- Give teaching that you enjoy, topics that you know well.
- If you do not know the answer to a question, promise to look it up and get back to them. Alternatively, agree with the student for both of you to seek the answer and discuss it at a later stage. It is not difficult to see when someone is guessing the answer and that could affect your credibility, even for facts you truly know. A teacher does not have to know all.
- Attend formal teaching courses, to improve your teaching skills.
- Devote time to preparation.
- Teach by example, as juniors and trainees learn lots through observation of behaviours and actions. Put your best performance in front of them, in how you deal with patients, colleagues, situations and problems. Juniors may look at you as a role model and their impressions may be long lasting.

- Test that your message is getting across. Give facts, and then question the learner as to what they understand. Show a procedure and then ask them to demonstrate it back. A learner nodding at what you say may not be one who fully understands.
- Demonstrate the limitations of what you are teaching. Make it clear when knowledge is grey, rather than trying to paint it all black or white.
- Be considerate to the patient, respect their confidentiality, ask for permission to involve them in teaching, consider asking for their feedback.
- Continuously evaluate your teaching methods. Either by feedback from the trainees, or colleagues and other peers. This will help you further develop your training methods, but may also help you gather evidence for you professional development.
- Do not view questions or queries by the students as doubting your knowledge or authority. If you explained something but it is not understood, knowing that may help you rethink how to present it next time. Questions may also help you reconsider concepts you long thought were clear and obvious. We often learn from our trainees as much as they learn from us.
- Give handouts to facilitate attention, so that learners do not spend all time making notes. Allow space in handouts to take limited additional notes. Handouts with your slides would of value. Be aware of copyright regulations in distributing copied work.
- Provide specific advise about further reading (textbooks, articles).

Many of us may still recall an outstanding teacher from our early school days, someone we respect, admire and on occasions miss. We may recall a trainer at university or postgraduate training that we saw as a role model, someone we hoped to match one day. How did that teacher or trainer behave, why was that teacher inspiring? As a teacher now yourself, what behaviours can you adopt to infuse those feelings to your students or trainees?

Lecturing

Lectures form a vital part of medical education as they allow a large volume of factual information to be conveyed to large groups of learners. Lectures can be of great value or of minimal educational value, depending on how they are delivered and how the message gets across.

In giving a lecture consider:

- Give a clear aim as to what the lecture aims to achieve.
- Give a plan of your lecture, outlining the structure of your presentation. Set the layout of lecture with planned breaks.
- Keep it simple, use easily understood language.
- You may not be able to provide all essential information or give detailed facts as part of the lecture, but can give pointers as to where to find that information. These may be articles or books for further reference.
- Use repetition for important concepts. Use different ways of explaining one concept to ensure the message gets across.
- There are several techniques to maintain interest and attention throughout lectures. It has been shown that the maximum attention during a lecture (as assessed by note taking) is within the first 15 min, with concentration levels gradually declining after that, only to go up again towards the end [16, 17] (Fig. 5.4). Hence, avoid very long lectures, and give your important messages early on, or leave them till the very end. Try to arouse interest at regular intervals, to re-start the attention curve. Several techniques may be used to engage the audience, encourage active learning, and stimulate attention [18, 19]. These may include:

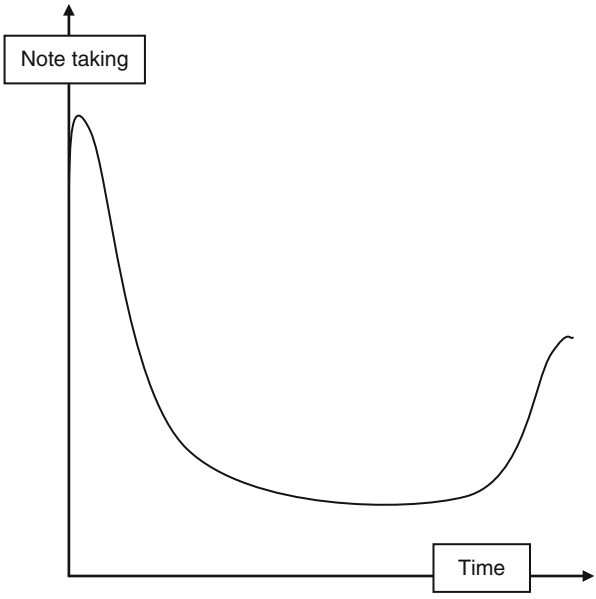

Fig. 5.4 Fluctuation of note taking, as a marker of learners' attention, during a lecture over time (Adapted from Bligh [17])

1. Questioning
2. Brainstorming
3. Small group discussions
4. Problem solving
5. Peer teaching
6. Role playing
7. Regular breaks, stand up, stretch legs

- Summarise at the end of the lecture, stressing important take home messages. If students were to remember one single thing from the lecture, which one would that be?

Assessing Trainees

> Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid
>
> Albert Einstein [1]

There may be a structured assessment process that you need to familiarise yourself with. Devote time to giving feedback, respect the assessment process. The trainee may have put all the effort and preparation for this assessment, and your part is to give it the attention it deserves.

- Give positive feedback followed by constructive criticisms.
- Give feedback soon after the assessment process.
- Describe the good and not so good things you observed.
- Described what you observed in detail, rather than simply giving an overall impression, to allow the individual to specifically learn.
- Give details for areas of improvement.
- Have a clear understanding in the assessment tools and get trained in them. If a formal assessment process or evaluation tools are not available, consider using Miller's pyramid [20] (Fig. 5.5). This provides a structure for assessing clinical competence. It describes the various clinical competencies in four stages as "knows", "knows how", "demonstrates" and "does". "Does" refers to action taken in real practise.
- View assessment tools as a way of putting structure to the assessment process, rather than another piece of paperwork.

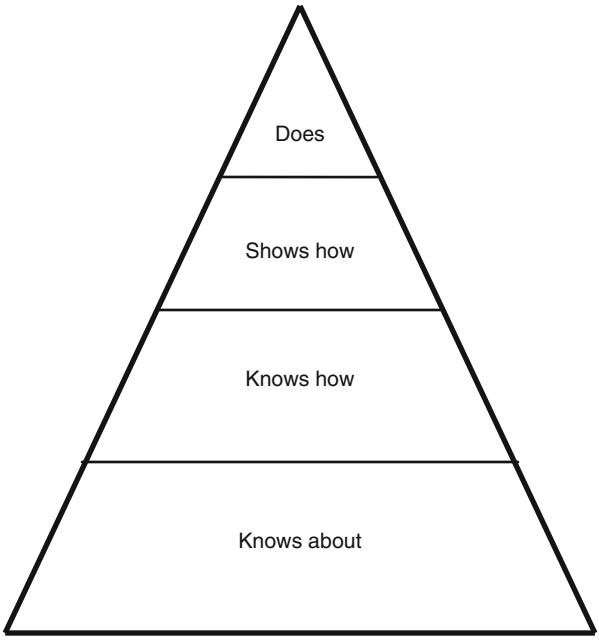

Fig. 5.5 Miller's pyramid of assessment (Adapted from Miller [20])

Organising a Course

As a doctor you may organise a medical course or a workshop, as part of your training activities. Organising a successful course is a challenging task that requires careful thought, planning and preparation. In organising a course consider the following;

- Need –
  - Is there a true need for the course?
  - What is this course trying to achieve? Address a local audience, fill a vacuum of courses on the topic to be covered, improve on content and style of an existing course?
- Audience –
  - Who will be the target audience? Will it be local, regional, national or international?
  - Level of training? Is it aimed at medical students, junior doctors, senior doctors or allied health professionals?
  - How many attendants aimed at? What if too many or too few apply?
- Why would the audience attend? Will they attend aiming to aid exam preparation, improve knowledge or develop new skills?
- Format – What will the format be? Will it be lectures, small group discussions or practical workshops?
- Location – Where will it take place, what facilities are necessary and what are available?
- Faculty –
  - Who will deliver the course?
  - Availability of faculty?
  - Interest and reliability in participating?
- Costs –
  - Paying for venue, administrative support, faculty attendance or travel, adverts.
  - Sponsors?
  - Delegates paying fee? If course is free, how can attendance be ensured? Paying fee to be returned upon attendance may facilitate attendance.
- Timing of course – Is it clashing with other courses? Is it in time for upcoming exams, holidays, faculty availability?
- Accommodation – For faculty or attendees. Will this be provided as part of the course fee? Can a list of local accommodation facilities be constructed?
- Advertisement – How will the course be advertised?
- Plan in advance.

  - Advertise in advance but also closer to the course.
  - Confirm faculty attendance well in advance.
- Registration process – Have a clearly identified contact person for attendees and faculty.
- Involvement of patients – How will they be identified and asked for participation, travel to and from hospital?
- Course material – Printouts, booklets.
- Feedback – Obtain feedback at end of the course and use it to improve further courses.

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