

CHAPTER 1

Becoming a Better Teacher

Peter Cantillon

Discipline of General Practice, School of Medicine, National University of Ireland, Galway, Ireland

OVERVIEW

- This chapter outlines teacher development strategies for teachers who find it difficult to attend formal faculty development
- Teaching scripts (i.e. teachers' knowledge of the subject matter, the learners, the context and teaching techniques) provide excellent organisational frameworks for thinking about teaching
- Developing a critical self-awareness of teaching beliefs and practices is essential if teachers are to develop themselves. Critical self-awareness can be developed by:
 - developing a habit of teaching evaluation
 - arranging peer observation of teaching
 - completing a teaching orientation inventory
 - learning how to get the most out of teaching and learning experiences through reflective practice

Becoming a better teacher

For centuries medicine has been learned through an apprenticeship of observation and participation. Medical teachers acted as apprentice masters who provided their apprentices with access to patients and shared their expertise. It was unusual for clinicians to undergo any form of teacher training, because the only qualification required for teaching was clinical proficiency. The expert clinician/amateur teacher model persists to this day, but it has come under increasing pressure with the advent of limited hours working time directives, competency-based curricular designs, enhanced supervisory roles, external accreditation of medical education and increasingly complex assessment strategies. As a result, it is becoming ever more difficult for medical educators to rely solely on their subject matter knowledge as being sufficient for their teaching roles. In many countries there is now an expectation that doctors who have formal educational roles should undertake some form of faculty development in order to fulfil those roles. It is important to

bear in mind, however, that many medical teachers are full-time clinicians or may have significant research responsibilities, thus making it difficult for them to engage with faculty development opportunities. Given the very real pressures of service delivery and research productivity, how can we support clinicians in their endeavours to become better informed educators? This chapter will set out to address this question.

What every medical educator needs to know

If you are thinking about developing yourself as a medical educator, it is important to have a sense of direction. You need to have some idea about what aspects of your teaching role you might want to enhance. Since the early 1990s, several reviews have been published exploring the attributes of excellent medical teachers and the key findings from these reviews are summarised in Box 1.1. When structuring the attributes of excellent teachers in Box 1.1, I used features of the so-called teaching script model described by David Irby (1992). Irby interviewed medical teachers who had been identified as excellent educators by other teachers. He found that expert teachers use mental shortcuts, which he called teaching scripts, to structure their teaching. When asked to teach about something familiar, expert teachers call on particular forms of knowledge, including:

- knowledge about the subject matter;
- knowledge about the learners;
- knowledge about the patient;
- knowledge about teaching.

Teaching scripts represent automated ways of thinking and teaching (see Figure 1.1). Whilst it is unlikely that you will consciously construct teaching scripts (they tend to come into being implicitly), the teaching script model does provide a useful way of thinking about what you need to know when you teach, (e.g. 'knowledge of the learners' implies that you need to know who these learners are, their names, where they are in the course, what they are likely to

Box 1.1 Attributes of excellent medical educators

Understand learners

- Knows what learners should be able to do, say or perform at a particular stage of development
- Knows how to use observation and questioning techniques to diagnose the state of learners' knowledge and competence
- Is aware that learners differ in terms of prior knowledge and ability even within groups at the same chronological stage of development
- Is aware that he/she cannot re-inhabit themselves at an earlier stage of development and must therefore endeavour to look at problems and challenges through the learner's eyes.

Understand learning

- Is aware of behaviourist, cognitive and constructivist perspectives on learning
- Is aware of the benefits of active learning techniques
- Understands what motivates learners and how to capture attention

- Understands how his/her own enthusiasm and role model behaviour influence learning

Understand self

- Aware of personal teaching values, beliefs and biases
- Critically reflects on teaching experiences
- Routinely seeks evaluation of teaching from learners and peers
- Uses evaluation findings to develop as a teacher

Understands how to use effective teaching strategies

- Uses questions to explore thinking and direct learning
- Knows how to structure explanations around core concepts
- Provides focused and timely feedback for learners and seeks feedback on his/her own clinical teaching activity
- Is self-aware as a role model
- Knows how to use time effectively for maximum educational benefit
- Knows how to ensure learner safety in busy educational and clinical learning environments

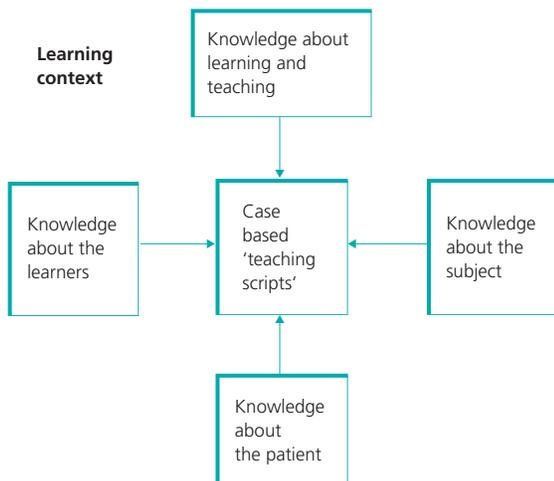


Figure 1.1 Various domains of knowledge contribute to the idiosyncratic teaching strategies ('teaching scripts') that tutors use in clinical settings.

know – you can use this knowledge to pitch your teaching appropriately).

Using the teaching script model we can conceptualise that becoming a teacher is essentially about understanding yourself, your learners and learning. This chapter will, for the most part, focus on understanding yourself as a vital part of developing yourself as a teacher. The chapter will also offer some suggestions about how we might come to understand learners. Understanding learning is core business for faculty development and we offer a table that summarises many of the formal faculty development opportunities available.

Understanding yourself

Most descriptions of teacher development talk about what teachers should be able to do, what they should know, etc. However, it is important to bear in mind that medical teachers become the teachers

that they are as a result of their experiences as learners and practitioners as they transit a multitude of clinical, professional and educational contexts. Over time, doctors develop strong implicit beliefs and assumptions about learning and teaching that inform their teaching practices. We know from cognitive descriptions of teacher development that educators' 'prior knowledge' about teaching, (i.e. their beliefs, their rules of thumb, their teaching habits) exert a strong influence over what they are capable of subsequently learning about teaching. Prior knowledge is very powerful in shaping what people pay attention to: the sense that they make and what they learn. In practice this means that teachers are likely to tacitly reject new ideas that do not fit with their strongly held beliefs or that threaten to disrupt well-established teaching habits. Thus, developing and encouraging self-knowledge and critical self-awareness (curiosity about your own thinking and practices) are essential attributes to nourish if you want to become a better teacher.

How to develop self-knowledge as a teacher

Perhaps the simplest way to become aware of yourself as a teacher is to develop a strong and consistent habit of evaluating your teaching. Evaluation in this context means placing a value or worth on your teaching. You can look for evaluation information from two common sources – your learners and your professional peers:

- Learners can tell you about what it was like to listen to you or to be observed by you, etc. They can tell you about things like clarity, speed, diction and how safe they felt in your company. Learner safety, like patient safety, is an essential consideration for the excellent teacher. *Learner safety means that learners feel secure to share their doubts, their misconceptions and their scepticism with you, without fear of ridicule or disrespect.* This is a lot easier if you begin to regard yourself as a coach who is trying support students in achieving something rather than as a demonstrator.
- Professional peers can tell you about the currency and comprehensiveness of the content that you might wish to explain.

They can also tell you about whether you are carrying out important teaching functions, such as exploring learners' thinking, giving them opportunities to perform and providing feedback.

There are many forms of evaluation and, indeed, there are many evaluation forms! The commonest format is the *post hoc* questionnaire distributed to students during or after an event. Used diligently (i.e. if you customise the questionnaire items in relation to what you want to evaluate), evaluation questionnaires can yield useful data for reflection. On the downside, questionnaire evaluation strategies often lead to survey fatigue. Furthermore, if questions are not refreshed and developed, there is a gradual drop-off in response rates. Most importantly, learners will cease to engage in evaluation if they get the impression that you will not respond to their criticisms and observations. Thus the most important message about using evaluation questionnaires to evaluate your teaching is that you should ensure you take learners' suggestions seriously and that you publicise the changes made to your learners.

There are other more stimulating ways of finding out how learners value and experience your teaching. These include:

- 1 Asking students to complete a 1-minute paper (see an example of a 1-minute paper in Chapter 9).
- 2 Electing student monitors who take it upon themselves to talk to colleagues about teaching events or teachers with a view to providing feedback to the teachers or directors – student monitors provide more detailed descriptions of the student experience, what they are learning and also how they experience you as a teacher.
- 3 Looking through a small sample of student notes after a tutorial, small or large group session to see what they are learning and paying attention to.
- 4 Looking at the quality of student performance in summative assessments in relation to content or topics that you have taught. Their performance under exam pressure can reveal a lot about what they learned and therefore about the value/effectiveness of your teaching.

Peer evaluation

Peer evaluation involves asking a colleague to sit in when you are teaching or, alternatively, to watch a video of your teaching. The professional peer can provide an unstructured observation of what you are doing or use a structured observation tool (see Box 1.2) to provide feedback to you after the event. Unstructured peer observation can lead to some quite organic and creative observations and will depend on your peer observer's prior knowledge of teaching, learning and the subject matter. Using standardised teaching observation tools, on the other hand, can help to structure peer feedback and provide a useful focus for what you want your peer to observe. Examples of what you might like your peers to look at as well as teaching observation tools that they can use are listed in Box 1.2.

Knowing your teaching orientation

Whilst I hope that you will always attempt to evaluate your teaching, you can also develop your self-knowledge by taking one of the many teaching orientation assessments. In the 1980s it became clear that teachers could be categorised along a continuum between

Box 1.2 Peer observation tools and features of good teaching

Attributes of good teaching for peers to observe

- Quality of feedback conversations with learners
- Ability to diagnose/discern the state of learners' knowledge and skills
- Ability to provide explanations that build conceptual knowledge and that support understanding
- Use of questions that explore thinking and motivate
- Ability to establish a safe learning environment
- Ability to make effective use of limited time for teaching

Peer teaching evaluation tools

These are all freely available online and can be downloaded for use. It is very important that any publications that use these tools, including reports, should acknowledge the source.

- The Maastricht Clinical Teaching Questionnaire (MCTQ)
- The Peer Observation Form (POF), Imperial College London
- The Peer Observation Scale, Ronald Berk, Johns Hopkins School of Nursing
- The Stanford Faculty Development Program evaluation tool (SFDP 26)
- The Professionalism Mini-evaluation Exercise (P-MEX)

being 'teacher-centred and learner-centred'. Teacher-centred teachers were more likely to use didactic lecturing techniques in their teaching and were likely to conceptualise teaching in terms of transmitting knowledge to learners. From a teacher-centred perspective learning is about receiving and categorising information. A teacher-centred approach places the control very much in the hands of the teacher; however, there are serious problems with teacher-centredness. Cognitive research has revealed that learners do not hear what teachers say; rather they hear what they are capable of hearing and their attention is directed largely by their prior knowledge, their attitudes, interests and so on. This led to a recognition that learner-centred teachers who focus more on what and how learners are learning (as opposed to their own performance as teachers) are better able to facilitate deeper and more effective learning amongst their students. This observation led to the development of many instruments for measuring the orientation of teachers. One of the better established instruments is the Teaching Perspectives Inventory, or TPI. This allows you to conceptualise your own implicit views and perceptions about teaching as well as providing some guidance about how you might develop better and more learner-centred orientations. You can take the TPI online at <http://www.teachingperspectives.com/tpi/>. The author, Dan Pratt, has provided some very useful guidance on the different perspectives as well as a means of interpreting the results on the website.

Learning from experience: becoming a reflective teacher

So far we have discussed the use of external sources of evidence, e.g. learners, peers, standardised self-assessment instruments, to come to understand ourselves. There are many techniques that also allow you to learn from your own experiences – the most established of these is so-called 'reflective practice'.

Reflection is a term that has many potential meanings. At its simplest, reflection means ‘to look back and consider something’. While such thoughtfulness can result in insight and learning, it does not automatically lead to genuine transformations in thinking or practice. Yet, looking back on experience is what many people think reflection means. In education, reflective practice means looking back with a view to transforming routinised ways of thinking and doing things. Mezirow (1990) described a more critical perspective on reflection in terms of being a

... process of becoming critically aware of how and why our presuppositions have come to constrain the way we perceive, understand, and feel about our world; of reformulating these assumptions to permit a more inclusive, discriminating, permeable and integrative perspective; and of making decisions or otherwise acting on these new understandings.

– Mezirow (1990)

The key purpose of reflective practice as a teacher is to ensure that your experiences allow you to question the assumptions; the habitual ways of thinking and acting that underpin how you

learn and how you teach. There are many techniques associated with reflective practice, including, for example, keeping a journal or writing a blog. Such techniques allow you to record experiences and at the same time to demonstrate to yourself (and, if you like, to others) what meanings you are deriving from that experience.

Understanding learning and learning environments

Developing yourself as a teacher is not only about beginning to understand yourself as an educator, a coach and a mentor, but it is also about understanding how learning occurs and about coming to appreciate the enormous influence of the context in which learning occurs (i.e. the learning environment) on what is learned and how it is learned. Whilst a large portion of this chapter has been devoted to the importance of self-awareness in becoming a teacher, the issue of understanding learning has been addressed in several other chapters, including Chapters 1 and 3–6. The influence of learning environments on learning is also well covered in Chapter 9. Formal approaches to developing as a teacher are

Table 1.1 Explicit faculty development opportunities

| Faculty development opportunity | Benefits | Challenges |
|---|--|--|
| Certificate/diploma/master's in medical/health professions education You can find a reasonably up-to-date list of master's in medical education available worldwide at: http://www.faimer.org/resources/mastersmeded.html | <ul style="list-style-type: none"> • Provide a comprehensive teacher development programme • Opportunity to meet like-minded teaching enthusiasts • Provide an important qualification for formal teaching appointments in many countries | <ul style="list-style-type: none"> • Difficult to integrate academic workload with clinical and personal life responsibilities • On-site courses require a major personal time commitment • Online courses can leave learners feeling quite isolated • Difficult to translate academic and abstract educational concepts to the realities of clinical workplaces |
| Teaching fellowships | <ul style="list-style-type: none"> • These are 1- or 2-year medical teacher training posts that are available in many countries • Usually involve dedicated time for teaching, teacher development as well as clinical work • Sometimes include funding/support for higher degree or doctorate in medical education | <ul style="list-style-type: none"> • Teaching fellowships do not always fit well with established postgraduate residency programs • Some teaching fellowships are used to advance clinical research rather than teacher development • Teaching fellowships require significant funding to make them viable |
| Faculty development workshops | <ul style="list-style-type: none"> • These are the commonest and most accessible form of teacher development available in developed countries • They have been shown to be effective in changing thinking and teaching practice | <ul style="list-style-type: none"> • Faculty development workshops often provide knowledge and skills that are not easily translatable into the actual job of teaching in workplaces |
| Establishing a peer group of teachers | <ul style="list-style-type: none"> • Provides an important support system as well as stimulus for developing teachers • Provides ready sources of peer observation and feedback | <ul style="list-style-type: none"> • Difficult to establish and sustain, particularly amongst doctors in training grades • Require constant work in order to maintain motivation to participate and contribute |
| Web 2.0 opportunities, including educational blogs, wikis, Twitter feeds, YouTube channels, webinars and TED talks | <ul style="list-style-type: none"> • There are a multitude of health professions education blogs, wikis, etc. • They are largely asynchronous and can therefore be accessed at any time • Most are free and therefore available to everyone in developing and developed countries | <ul style="list-style-type: none"> • It is important to be selective about what wikis, Twitter feeds, blogs etc. you subscribe to, as they can fill up the inbox very quickly |

summarised in Table 1.1. The remainder of this chapter will therefore be devoted to the final part of Irby's teaching script model, i.e. understanding learners.

Understanding learners

There are some critical things that you need to know about learners in order to get better at teaching:

- 1 You cannot see the world as your learners see it, even if you occupied their role or social position in the recent past. This is because all of your subsequent experiences, your training and reflections have caused much of your knowledge to be automated and condensed. (For example, think back to the first time you had to present a case during a ward round and think about how you might carry out that same task now. Much of what was very effortful and fear-inducing at that time is now seamless and requires very little cognitive effort.) As we learn to perform as doctors, much of our knowledge becomes automated and we employ a lot of mental shortcuts, such as pattern recognition. You need to be aware of the need to unpack your knowledge for learners, i.e. step by step, so that they can travel with you along your line of thinking.
- 2 Learners are engaged in a continuous game of impression management (as are you). Goffman(1959) described in his seminal text, *The Presentation of Self in Everyday Life*, how all of us perform our identities and social competence in the presence of others in a manner designed to achieve the most beneficial assessment of ourselves in the minds of others. In terms of understanding learners, this means that learners are attempting to impress you in much of what they do and say. Sadly, this does mean that learners are not being themselves; rather they are performing ways of thinking, speaking and acting that are likely to form favourable impressions in the minds of others. This is an important insight into learners, because it explains why it is so important for you to create a safe learning environment where learners can share their doubts, their misconceptions and their tentative estimations without fear that you may think less of them or that they might be ridiculed.

Conclusion

This chapter has largely focused on the idea that enhanced self-awareness is the pathway to becoming a better teacher. Understanding learners, learning and learning environments is also very important and is for the most part covered elsewhere in this book. Table 1.1 outlines some of the common and more explicit ways of developing as a teacher. There are many advantages to the approaches highlighted, but in the end teaching is about a relationship between you, the teacher, and one or more learners. In this regard, when acting as a teacher or role model, you are in effect performing an educational intervention. Self-knowledge and a willingness to understand and develop yourself as a teacher represent underreported yet vital aspects of becoming a better teacher.

References

- Goffman E. *The Presentation of Self in Everyday Life*. New York, NY: Doubleday, 1959.
- Irby DM. How attending physicians make instructional decisions when conducting teaching rounds. *Acad Med* 1992; **67**(10), 630–638.
- Mezirow J. *Fostering Critical Reflection in Adulthood*. San Francisco, CA: Jossey-Bass, 1990.
- ### Further reading
- Finlay L. Reflecting on 'reflective practice', 2008. *Online*: [http://www.open.ac.uk/encetl/sites/www.open.ac.uk/encetl/files/files/ecms/web-content/Finlay-\(2008\)-Reflecting-on-reflective-practice-PBPL-paper-52.pdf](http://www.open.ac.uk/encetl/sites/www.open.ac.uk/encetl/files/files/ecms/web-content/Finlay-(2008)-Reflecting-on-reflective-practice-PBPL-paper-52.pdf). Accessed: February 2017.
- Irby DM. Excellence in clinical teaching: knowledge transformation and development required. *Med Educ* 2014; **48**(8), 776–784.
- McLean M, Cilliers F, Van Wyk JM. Faculty development: yesterday, today and tomorrow. *Med Teacher* 2008; **30**(6), 555–584.
- Rogers CR, Scott KH. The development of the personal self and professional identity in learning to teach. In: Cochran-Smith M, Feiman-Nemser S, McIntyre J, eds. *Handbook of Research on Teacher Education: Enduring Questions and Changing Contexts*, 3rd edn. New York, NY: Routledge, 2008.

