

Become a Better Teacher Today: Eight Easily Applicable Ways to Improve Your Skills as a Clinical Teacher

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Abstract

In this article we aim to provide busy clinicians with eight easily applicable tools to improve their clinical teaching skills. We encourage use of the adult learning model in postgraduate education, focus on critical thinking, encourage engagement, and use of active teaching strategies such as concept maps. We describe role modeling of behaviour, provision of feedback, and the role of bedside teaching. We approach this with a "what", "why" and "how" model that provides a practical means to introduce new techniques in a time limited environment.

Introduction

A major challenge dominating the modern era of post-graduate medical education is meeting learners' needs without detracting from clinical service. Doctors in training state a need for increased opportunities to pursue subjects in depth, spend time with patients, and participate in discussions with teachers and mentors.¹ One solution to the conflict between clinical services and educational needs is to explore educational opportunities that arise in day-to-day practice and maximize the efficiency of those opportunities. Here we present eight low effect, high impact strategies that can easily be incorporated into daily clinical practice to better enrich the learner and teaching experience.

Creating an environment conducive to learning: Adopting an adult learning approach

What?

Adult learning differs from childhood learning. The main difference being adults are differently motivated.² Adult learning theory acknowledges that adult learners must have a “need to know” to effectively engage with concepts, topics, or material.

Three main ways in which this manifests are: 1) Based on life experiences, adults bring more to the learning environment and expect that these experiences should be valued and respected, 2) adults relate new learning to their past experiences, and 3) adults’ thoughts, beliefs, and knowledge is more fixed, and as learners, adults need to be challenged to recognize this. Recognition of learning goals in this setting is imperative.

Why?

In practice, adults benefit from experiential learning in an environment of mutual respect. Historically, this was not the case, with Tim Swanwick (2008) classifying three forms of teaching that occurred as “the sage on the stage”, “hanging around with the big boys” (or “learning by lurking”), and “teaching by humiliation”.³ None of these forms of teaching are based on adult learning theory or foster a productive environment for adult education.

How?

In adult learning, a greater focus on practical applications (e.g., case-by-case, patient-centred, bedside education) and a culture of mutual respect is required. Small group discussions, rather than didactic lectures, better facilitate adult learning. Learners should be challenged to open previously fixed ideas. Strategies that support this include 1) knowing and understanding learners’ prior experiences to optimally contextualize topics for them, 2) appreciating learners’ perception of their ‘need to know’ and working to optimize their perspective of the importance of the topic, and 3) treating learners with respect and avoid teaching with humiliation strategies.

Abandon hierarchy: Make learning a level playing field

What?

The hierarchy of medicine is exemplified by consultants expecting (or allowing) learners to refer to them as “Dr. X”. To foster the adult learning environment of mutual respect, a horizontal power structure is preferred.

Why?

Referring to a consultant by their first name only begins to break down the hierarchical structure of a medical team but doing so contributes to a safe learning environment and functions to intensify meaningful communication. Learners are more likely to admit confusion if hierarchy is de-emphasized, and a collegial, collaborative relationship between the learner and teacher is prioritized.

How?

Consultants cannot be unapproachable or intimidating figures. Removing hierarchy facilitates a free exchange of ideas and learners feel enabled to admit areas of uncertainty, allowing the consultant to focus on concepts that may be confusing or misunderstood.

Tools for Critical thinking: The importance of asking “why?”, discouraging “reporters” and using *silence*

What?

Learners can be stratified by the RIME paradigm; Reporters, Interpreters, Managers, and Educators.⁴ To evolve from reporting to interpreting, consultants must encourage learners to practice processing and synthesizing clinical data, going beyond simply reporting clinical information without analysis or interpretation. Asking “why?” invites the learner to offer their reasoning and describe their thought processes and rationalization. Additionally, appropriate use of *silence* can encourage contributions, and promotes discussion and interaction, as opposed to didactic teaching styles.⁵

Why?

Asking “why?” encourages the learner to expand upon their understanding, promotes growth by helping learners go beyond rote reporting of clinical data, and allows teachers to identify knowledge gaps to guide future teaching.⁶ Evolving from ‘data gatherers’ to being able to process and synthesize medical information is a fundamental goal for learners as they progress from trainees to autonomous clinicians.

How?

Teachers must be comfortable allowing learners to demonstrate their understanding of *how* clinical data leads to diagnostic considerations. Asking “why?” invites an assessment (“Why do you think that is the most likely diagnosis?”) and allows the teacher to probe the learners’ reasoning and understanding. To use silence after posing a question, a teacher should silently count to ten before speaking to encourage learners to respond.⁵

Concept mapping: Physiology based teaching

What?

Concept maps are graphic depictions of learners' knowledge and understanding, which encourage learners to develop strategies and provide frameworks of understanding rather than lists of diagnoses.⁷ Figure 1 is an example of a concept map on this topic.

Why?

There is substantive cognitive value in graphically depicting one's understanding of a clinical topic/concept. Encouraging learners to develop their own concept maps can reinforce mechanistic and clinical relationships.⁸ Additionally, making links between different clinical signs or symptoms and physiologic and pathophysiologic processes can reinforce deeper understanding of a clinical problem.

How?

Independently developing a concept map can be intimidating, so demonstrating how to develop a concept map may encourage learners to use them in their own learning. Similarly, identifying appropriate topics for concept maps is important. Focused questions (e.g., "How does emphysema cause wheezing?") are more amenable to concept mapping than broad, general questions (e.g., "What are causes of chest pain?").

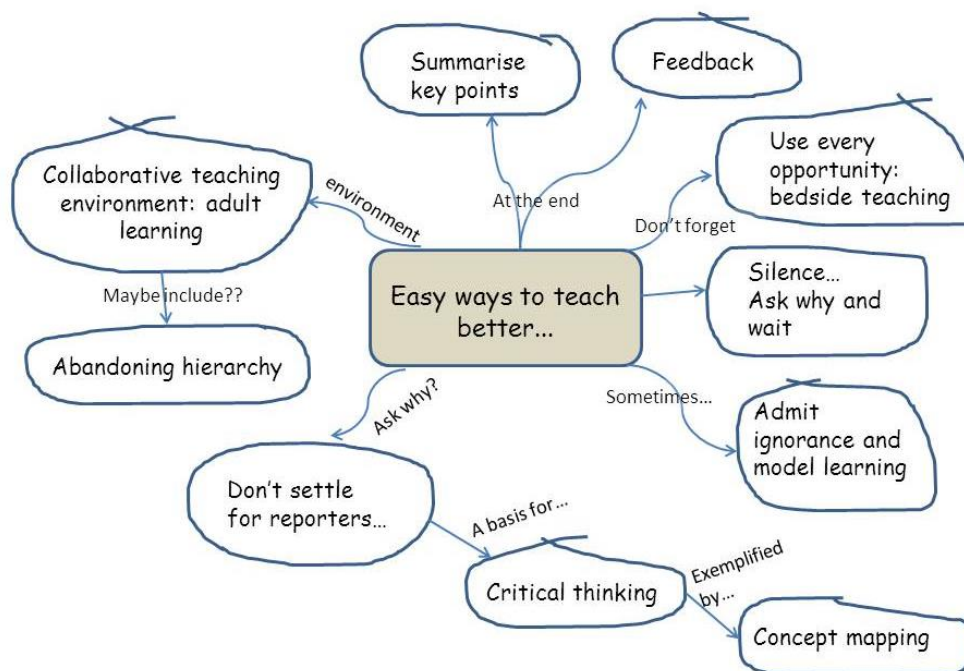


Figure 1: Concept map depicting easy ways to teach effectively.

Admit ignorance

What?

Consultants or teachers don't know everything and modeling how to deal with uncertainty or a knowledge gap is important for learners' growth. Specifically, demonstrating that practicing clinicians are not infallible emphasizes that medical practice involves lifelong learning.

Why?

Even if learners are taught how to use medical information resources, accessing such resources in the context of point-of-care clinical work is not typically explicitly taught. Therefore, when consultants admit unfamiliarity with a question and then demonstrate how to address that knowledge gap, learners are exposed to practical learning.

How?

Rather than feign expertise, consultants should admit uncertainty and then model *how* they would address uncertainty by performing a literature search with the learners. This behaviour supports the development of self-directed learning skills which enable the learner to access the medical literature in an efficient manner, promoting personal and career development.

Never miss an opportunity: Bedside teaching

What?

Eliciting physical exam findings and teaching in context is a mainstay of medical education, but currently less than 25% of clinical teaching occurs at the bedside.⁹ Contrary to common beliefs, patients enjoy bedside teaching encounters,¹⁰ but barriers including quick patient discharges and reliance on imaging exist.

Why?

Bedside teaching is an opportunity to develop the concepts already discussed on ward rounds or teaching sessions. It is a chance to role-model the physician-patient interaction. This should be done whilst keeping the session learner-centered, rather than engaging in self-promoting displays by the consultant for the learner and/or patient.

How?

We need practical steps to help us move out of the corridors and back to the bedside.¹¹ Ensure the skill being taught corresponds to the learners' needs, abilities, and past experiences (see Tip 1). Construct a lesson plan and share this with the learners. Plan to keep all of the group engaged (e.g., assigning tasks, develop discussion questions in advance).

Involve the patient, preparing them for the experience sets up modeling of the patient-centered practice and attitudes throughout the teaching session. Finally, challenge the learners with questions and encourage performance of appropriate interviewing, counseling and physical exam skills.

Feedback in the moment

What?

Feedback is “information describing performance in a given activity that is intended to guide future performance”¹² and is integral to the process of clinical learning.

Why?

In the era of outcome-based medical education, learners are expected to achieve milestones, and, if done well, feedback may assist this process. Trainers often believe they offer frequent and appropriate feedback, however trainees often think they receive infrequent and ineffective feedback.¹³

How?

We need to recognize the goals of the learner and provide specific feedback describing objective behaviors (and not subjective impressions) based on direct observation.¹⁴ Feedback needs to happen regularly so it’s an expected part of training. Giving feedback closer in time to the behavior that needs correction gives the learner a better chance to change.

Summary and Reflection

What?

Recapping on learning points gained in a clinical teaching scenario is a final opportunity to embed knowledge within the learners’ scaffold of pre-existing knowledge.

Why?

Either inviting the learner to recap salient learning points or working together to summarize leverages Bloom’s Cognitive Taxonomy.¹⁵ Bloom’s Taxonomy describes a gradation of the higher orders of thinking; starting with basic knowledge recall, developing through comprehension, application and analysis and culminating in synthesis, and ultimately evaluation of the new learning. Also, by asking the learners to summarize, the teacher identifies knowledge gaps which will be addressed in future teaching sessions.

How?

“What did we learn today?” can introduce the summary. The teacher keeps things moving, acknowledging unexpected learning points and reiterating the learning objectives achieved and, finishing by recapping on learning points to consolidate.

Conclusion

Working in medicine means working in an environment where teaching is expected. Using low effort, high impact strategies described here allows us to identify teaching opportunities and make the most of them. By improving our own teaching skills we'll benefit our learners through simpler learning interactions and benefit ourselves through improved job satisfaction.

Declaration of Conflicts of Interest:

The authors have no conflict of interest to declare.

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