8 Strategies for Effective Teaching

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8 Strategies for Effective Teaching

Because of copyright restrictions, the following slides contain the text of this discussion without many of the images.
“Teaching is a messy, indeterminate, inscrutable, often intimidating, and highly uncertain task.”

Richard Elmore*

“Teaching can be compared to selling commodities. No one can sell unless someone buys…[yet] there are teachers who think they have done a good day’s teaching irrespective of what pupils have learned.”

Clinical Teaching

Goals of Session:

- To discuss principles of adult learning and their application to clinical teaching and learning;

- To review 8 essential strategies to achieve excellence in clinical teaching, and

- To share insights/techniques amongst ourselves about effective clinical teaching and learning.
Clinical Teaching

Overview

Need to accommodate these challenges:

- Different interests
- Different levels
- Time
8 Strategies for Effective Clinical Teaching

Strategy #1: Remember the ultimate goal of medical education


After, Cees van der Vleuten
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Strategy #2

remember the following assumptions about adults as learners*

- Adults,
  - Are autonomous and self-directed
  - Have accumulated a foundation of life experiences and knowledge
  - Are goal directed
  - Are relevancy-oriented
  - Practical
  - Need to be shown respect

http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/adults-2.htm
8 Strategies for Effective Clinical Teaching

Strategy #2

remember the following principles about learning

- Knowledge is constructed, not accumulated

Electrocardiograms Showing ST-Segment Elevation in Various Conditions

80 year-old woman with pericarditis

Electrocardiograms Showing ST-Segment Elevation in Various Conditions

- LVH
- LB³
- Acute pericarditis
- Pseudoinfarct pattern with hyperkalemia
- Acute anteroseptal MI
- Acute anteroseptal MI & RB³
- Brugada syndrome

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Strategy #2

remember the following principles about learning

- Knowledge is constructed, not accumulated
- Expertise depends on experience with cases
- Students learn when they are involved
- Learning is both a personal and a social process

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Strategy #3

Find out where in the world the learners are ‘at’

- Cognitively
- Stylistically
- Developmentally
- Personally

Fiona Lake & Gerard Ryan. Teaching on the run tips 2: educational guides for teaching in a clinical setting. MJA 180 May 17, 2004
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Strategy #4

Use the following template:

- Learning community
- Safety
- Microskills of teaching
- Educational contract
- Knowing the learner
Know the learner

Stephen Kuffler
1913-1980
On Being a Doctor

A Foreign Concept

The soft purr of the bedside telephone changes its cadence precipitously, and the shrill noise throws me out of my dream. Shaken out of a deep and tired sleep, I leap for the receiver.

"I am sorry, but there is an asthmatic girl who looks as if she will croak. I have tried my beeper usually precludes elaboration. One day, he accompanies me to see a patient who has had a stroke. After assiduously examining the woman, I come unstuck at the constellation of neurologic signs that await a concise interpretation. While I gaze at the computed tomography scan of her brain, I suck on the end of my pen for inspiration.

A respectful voice appears at my side, "It is in the left cerebellopontine junction."

I turn around, surprised.

"I used to be a neurosurgeon," he adds, almost apologetically.

"I am really sorry..." he starts.

A chance glance at the clock, recollections of previous unnecessary calls, the thought of another long day ahead, and the sound of teenage mirth floating through the corridor provoke a surge of venom within me. Before I snap, I storm upstairs to my cold bed. The next morning, I receive a call from the same physician. The words tumble out before I have a chance to speak.

"The patient said she didn't want to see a doctor with an accent and then started acting very sick. I was afraid." Embarrassed and mollified by the explanation, I tell him to things that I determine he must bring naturally to these encounters if he is to pass.

Some days he is receptive; other days he cannot contain his woebegone expression. He wistfully mentions the great divide between my medical training and his own, but my beeper usually precludes elaboration. One day, he accompanies me to see a patient who has had a stroke. After assiduously examining the woman, I come unstuck at the constellation of neurologic signs that await a concise interpretation. While I gaze at the computed tomography scan of her brain, I suck on the end of my pen for inspiration.
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Strategy #4

Use the following template

- Learning community
- Safety
- Microskills of teaching
- Educational contract
- Knowing the learner

Essential for feedback & evaluation of learner & program

Modified from Pratt D, Magill M. J Med Educ. 1983;59:452
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Strategy #4

Use the following template

What do you think?
Why?
Teach general principles.
What are your major questions at this point?
Reinforce what’s right.
Correct mistakes.
How can I be of most help to you?

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Strategy #4
Use the following template

Narrows the differential diagnosis

Analyses the differential diagnosis

Probes (asks the teacher about areas not understood)

Plans management

Selects an issue for self-directed learning

“SNAPPS” model*

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Strategy #4

Use the following template

- Maslow's hierarchy
  - Physiological
  - Safety
  - Love
  - Esteem
  - Self Actualization

Osler’s frequent salutation: “fellow students”
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Strategy #5

Use questions effectively

Bloom’s Taxonomy

In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behavior important to learning.

He found 95% of test questions only required recall of information.
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Strategy #5

Use questions effectively

Hierarchy of knowledge and examples of questions to determine the learner’s knowledge*

How well have you managed this patient?
What have you learned?

What do these findings mean?

In this patient what is the Dx? Rx? Likely outcome?

What are the causes? Effects? What do you understand by…?

What is the name of…? Where…?

*Adapted from Peyton and Allery; and Douglas et al. see Fiona R Lake, Alistair W Vickery & Gerard Ryan Teaching on the run tips 7: effective use of questions MJA 2005; 182 (3):126-127
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Strategy #5

Use questions effectively

Isidor Rabi: Nobel Laureate Physics, 1944

Of his mother he said: “She wasn’t so much interested in what he had learned that day, but she always inquired, ‘Did you ask a good question today?’ ‘Asking good questions,’ Rabi said, ‘made me become a scientist.’”

Hierarchy of knowledge and examples of questions to determine the learner’s knowledge*

Evaluation

Synthesis

Analysis

Comprehension

Facts

How well have you managed this patient? What have you learned?

What do these findings mean?

In this patient what is the Dx? Rx? Likely outcome?

What are the causes? Effects? What do you understand by…?

What is the name of…? Where…?

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Strategy #5

Use questions effectively

“Research data: teachers wait less than 1 second for students to respond. By prolonging wait-time to at least 3 seconds, students’ responses become 3-7 times longer and contain more logical arguments and speculative thinking.”

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Strategy # 6

Remember the three beneficiaries of clinical teaching

The patient’s voice is heard:

“I am Luis Alejandro Velasco…”
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Strategy # 6

Remember the three beneficiaries of clinical teaching

The houseofficer/student’s voice is heard:
at the bedside
as fellow-student
as fellow-teacher
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Strategy # 6

The faculty’s voice is heard:

Remember the
three beneficiaries
of clinical teaching

as role model/
hidden curriculum

stimulating the
‘curiosity gene’

Faith Fitzgerald, M.D.
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Strategy #7

reflect, reflect, reflect, reflect

ABC of learning and teaching in medicine: Learning and teaching in the clinical environment
John Spencer
BMJ 2003;326:591-594
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Strategy # 8

- Be Kind
- Think out loud
- Stick to the basics
- Follow some really good advice

Daniel Federman, M.D.
8 Strategies for More Effective Teaching

Remember:

1. ultimate goal of medical education
2. assumptions about adults as learners and the principles about learning
3. where the learners are ‘at’
4. the basic templates of teaching
5. the taxonomy of effective questions
6. the beneficiaries of clinical teaching
7. the role of reflective practice
8. Federman’s advice!
Coda
(in 6 parts)

[in music]”...a coda is required to ‘look back’ on the main body, allow listeners to ‘take it all in’, and ‘create a sense of balance.’”
Charles Burkart/Wikipedia
Good teaching is as much passion as it is about reason.

Richard Leblanc
“We must acknowledge again that the most important, indeed, the only, thing we have to offer our students is ourselves.”*

Daniel C. Tosteson, M.D.
Dean, HMS 1977-1997

Charles Handy

“…three old-fashioned words—curiosity, forgiveness, and love—still lie at the heart of all learning.”

“You might as well fall flat on your face as lean over too far backward.”

James Thurber
The humanitarian dimension of medical teaching is thus as significant as its scientific aspect. The two should be regarded as equal parts of the medical whole. To set forth a group of values that can help define the obligations of teachers and students, I have written an ethical code:

A Code of Ethics for Teaching Medicine
1. Teachers should treat students as they wish them to treat patients.
2. There are two main branches of learning in medicine. One is scientific, the other humanitarian. Each must be taught with equal commitment and knowledge.
3. Scientific learning is necessary so that students will not harm the patients they treat and will have an ability to create new knowledge. Humanistic learning is needed for the same reasons.
4. A teacher should be an educator and a friend to the student. As educator the teacher seeks intellectual growth. As friend, the teacher fosters the security to attain this growth.
5. What are the duties of teachers to students? They are many but three predominate: Candor—about students and self. Without an honest appraisal of their efforts, students cannot know where improvement is needed. Without an honest revealing of their own limits, teachers present a false image of the limits of knowing. Trust—bestowing trust on learners encourages their efforts to become reliable, a quintessential value of the practitioner in the clinic or the laboratory. Respect—for the diversity, effort, accomplishment, viewpoints, and limits of students. This gives them a dignity essential for growth and self-esteem.
6. What are the duties of students to teachers? Here too three stand out: Reciprocity—recognizing the need to reward efforts to teach with a commitment to learn. Honesty—in acquiring knowledge and admitting where more learning is needed. Openness—being receptive and giving a fair hearing to ideas.
7. A teacher should strive to create a humane environment toward students in the institution within which they learn. Humane rules and personnel foster an atmosphere within which the values of kindness and forbearance are transmitted.
8. Academic teachers are not the only sources of learning for students. Institutional personnel also give them lessons about respect and concern for others through the policies they follow and the actions they take. In this regard they too are educators.
9. Teaching should be valued by academic faculty. It combines responsibilities for the well-being of the students entrusted to their care and for knowledge.
Coda: Part 6

“The last word belongs to Eli, who wrote in his best, 5-year-old printing, his advice to new teachers.”*

4 Imprtint Things for Noo Teechrs to Member

1. Sumtims ther are no rite ansers.
2. Its eezier with a buddy.
3. Alwees smile.
4. Whan yor braen gets hevy be sher to empte sum and thn play and get sum rest.