Those Who Understand: Characteristics of Effective Teachers

The Arizona ACP Chapter Meeting
October 24, 2014
Tempe, AZ

Jack Ende, MD, MACP
The Schaeffer Professor of Medicine
Perelman School of Medicine of the University of Pennsylvania
jack.ende@uphs.upenn.edu
“Those who can, do. Those who cannot, teach.”

George Bernard Shaw, 1903
“Those who can, do. Those Who Understand, teach.”

E. B. White on Defining Humor

“It’s like dissecting a frog. No one is particularly interested – and the frog dies.”
“The most fundamental observation I can make about teaching is this: however mysterious or elusive the process may seem, it can be learned.”

C. Roland Christensen, Education for Judgment, 1992
Full Disclosure

I. Theory and Practice of Teaching Medicine
   Jack Ende, MD, MACP

II. Methods for Teaching Medicine
    Kelley M. Skeff, MD, PhD, MACP
    Georgette A. Stratos, PhD

     Patrick Alguire, MD, FACP, et al

IV. Teaching in the Hospital
    Jeff Wiese, MD, FACP

V. Mentoring in Academic Medicine
    Holly J. Humphrey, MD, MACP

VI. Leadership Careers in Medical Education
    Louis Pangaro, MD, MACP
Characteristics of Effective Teachers

• organizing vision
• connect with learners
• teach purposefully
• use scripts (pedagogic content knowledge)
• role model
Characteristics of Effective Teachers

- organizing vision
- connect with learners
- teach purposefully
- use scripts (pedagogic content knowledge)
- role model
Organizing Vision of Teaching – Answers question, Why do I teach?

Determines:
- what and how you teach
- your sense of satisfaction as a teacher
Organizing Vision of Teaching

“It’s very simple: eight words. Stick to basics. Think out loud. Be kind”

Dan Federman, MD, in Pangaro L, Book VI. Leadership Careers in Medical Education, 2010
“The problem with medical students is that they try to learn too much; the problem with medical educators is that they try to teach too much. *Teach them methods and the art of observation, and then give them patients to practice their skills.*”

- Sir William Osler, 1902
Towards an Organizing Vision of Teaching
Developmental Stages -

Stage I - pride in prowess

Stage II - awards and accolades

Stage III - enabling learners
“…but there it is”

adapted from Wiese J, Book IV. Teaching in the Hospital, 2010
Enable learners to derive the satisfaction that comes only when a clinical problem is thoroughly understood, a disease well treated, or a patient well cared for.

What’s yours?
Characteristics of Effective Teachers

- organizing vision
- **connect with learners**
- teach purposefully
- use scripts (pedagogic content knowledge)
- role model
# Generation Profiles

<table>
<thead>
<tr>
<th></th>
<th>Veterans</th>
<th>Baby Boomers</th>
<th>Gen X</th>
<th>Gen Y</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Style</strong></td>
<td>traditional, loyal</td>
<td>personal satisfaction, ambitious</td>
<td>self-reliant, progressive</td>
<td>modern, totally wired and “connected”</td>
</tr>
<tr>
<td><strong>Work Values</strong></td>
<td>respect for system</td>
<td>respects experience</td>
<td>respects expertise</td>
<td>respects achievement</td>
</tr>
<tr>
<td><strong>Focus of Respect</strong></td>
<td>work for security</td>
<td>lives to work</td>
<td>work/life balance</td>
<td>intense, with limits</td>
</tr>
<tr>
<td><strong>Reward</strong></td>
<td>a job well done</td>
<td>money, title recognition</td>
<td>freedom and time</td>
<td>meaningful work</td>
</tr>
</tbody>
</table>

adapted from Smith L G, in Humphrey H, Book V, Mentoring in Academic Medicine, 2010
# Generation Profiles

<table>
<thead>
<tr>
<th></th>
<th>Veterans</th>
<th>Baby Boomers</th>
<th>Gen X</th>
<th>Gen Y</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Style</strong></td>
<td>traditional, loyal</td>
<td>personal satisfaction, ambitious</td>
<td>self-reliant, progressive</td>
<td>modern, totally wired and “connected”</td>
</tr>
<tr>
<td><strong>Work Values</strong></td>
<td>respect for system</td>
<td>respects experience</td>
<td>respects expertise</td>
<td>respects achievement</td>
</tr>
<tr>
<td><strong>Focus of Respect</strong></td>
<td>work for security</td>
<td>lives to work</td>
<td>work/life balance</td>
<td>intense, with limits</td>
</tr>
<tr>
<td><strong>Reward</strong></td>
<td>a job well done</td>
<td>money, title recognition</td>
<td>freedom and time</td>
<td>meaningful work</td>
</tr>
</tbody>
</table>

adapted from Smith L G, in Humphrey H, Book V, Mentoring in Academic Medicine, 2010
## Generation Profiles

<table>
<thead>
<tr>
<th></th>
<th>Veterans</th>
<th>Baby Boomers</th>
<th>Gen X</th>
<th>Gen Y</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Style</strong></td>
<td>traditional, loyal</td>
<td>personal satisfaction, ambitious</td>
<td>self-reliant, progressive</td>
<td>modern, totally wired and “connected”</td>
</tr>
<tr>
<td><strong>Work Values</strong></td>
<td>respect for system</td>
<td>respects experience</td>
<td>respects expertise</td>
<td>respects achievement</td>
</tr>
<tr>
<td><strong>Focus of Respect</strong></td>
<td>work for security</td>
<td>lives to work</td>
<td>work/life balance</td>
<td>intense, with limits</td>
</tr>
<tr>
<td><strong>Reward</strong></td>
<td>a job well done</td>
<td>money, title recognition</td>
<td>freedom and time</td>
<td>meaningful work</td>
</tr>
</tbody>
</table>

adapted from Smith L G, in Humphrey H, Book V, Mentoring in Academic Medicine, 2010
Challenges Across Generations

- fast paced, pressured, high tech world
  - iPatient
- learning styles
  - devices, not docents
  - memorized answers, not methods
Connecting with Learners –

Breaking the glass

- names
- physicality
- visualization
- use of questions
Connecting with Learners –
Visualization: beyond “see one, do one, teach one”

• ‘see’ yourself doing one

• do it, virtually

• then when you need to, do it “again”
Connecting with Learners –

Use of questions

• When?

• How?
  • Two types: Discovery and Socratic
Connecting with Learners –
Discovery questions

Examples:
• “What do you think is going on?”
• “Why do you say that?”
• “Do you have a good method for this problem?”

Function:
• assess learner’s understanding
• encourage thought and exploration
• check on progress
Connecting with Learners –

Socratic questions

• answers are intuitive, simple
• wrong answers are teacher’s fault
• works best with one learner
• allows student to build neuronal connections, and recreate sequence
Characteristics of Effective Teachers

- organizing vision
- connect with learners
- teach purposefully
- use scripts
- role model
Teach Purposefully

Pick a plan

• SNAPPS model

• Aunt Minnie model

• 5-step Micro Skills model

adapted from Alguire P, et al, Book III. Teaching in the Office, 2010
Teach Purposefully
5-Step Microskills Method

1. get a commitment – “what do you think is going on?”
2. probe for supporting evidence – “why do you think that?”
3. teach general rules – “when you see a similar case, remember…”
4. reinforce what was done right – “here is what I saw you do…”
5. correct mistakes – “here is where you might have done things differently…”

adapted from Neher JO et al, 1992
“… and he jumped upon his horse, and rode madly off in all directions.”

from *Don Quixote*, 1605
Characteristics of Effective Teachers

- organizing vision
- connect with learners
- teach purposefully
- **use scripts** (pedagogic content knowledge)
- role model
Use Scripts
Pedagogic Content Knowledge

Effective Teachers:

• employ the most useful representations
• use the most powerful analogies
• provide the best way to formulate an approach
• know what makes a topic easy or difficult
• draw from a repertoire of scripts

adapted from Shulman L in Skeff K, Stratos G, Book II, Methods of Teaching, 2010
Pedagogic Content Knowledge
Scripts for commonly encountered problems

- tried and true representations
- drawing upon images and advanced organizers
- laced with questions, anecdotes, problems, etc.
- updated and refreshed
Characteristics of Effective Teachers

- organizing vision
- connect with learners
- teach purposefully
- use scripts (pedagogic content knowledge)
- role model
Role Models

- may have unique function in inculcating professionalism

- less explicit form of teaching, but no less important
Characteristics of Effective Teachers

• organizing vision
• connect with learners
• teach purposefully
• use scripts (pedagogic content knowledge)
• role model
Role Models
Exercises for becoming more effective

- Think about an individual whom you consider a true role model
  - what about this individual do you hope to emulate?
  - what attributes have you already adopted?

- Examine your own behavior
  - what undesirable behaviors should you try to avoid?
  - what behaviors should you cultivate?

- Recognize that learners are watching you all the time
  - think out loud
  - be prepared to debrief

adapted from Reed D and Wright SM, in Humphrey H, Book V, Mentoring in Academic Medicine, 2010
Characteristics of Effective Teachers
Left on the cutting room floor

- knowledge of learning theory
- attend to the learning environment
- able to provide feedback
- engages in structured reflection and self-appraisal
- participates in faculty development
- passion: for subject and for teaching