

Residents as Educators: Creating a Learning Culture

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Learning Objectives

Following this workshop, participating professors will be able to:

- 1. Describe models of teaching resident physicians how to teach.**
- 2. Establish or expand an educator training program for residents.**
- 3. Discuss ways to measure the impact of residents-as-educators programs.**

RESIDENTS AND FELLOWS AS TEACHERS

Resident physicians and fellows provide extensive teaching for junior learners.^{1,2}

1. O'Sullivan PS, Weinberg E, Boll AG, Nelson TR. Students' educational activities during clerkship. *Acad Med.* 1997; 72: 308-313.
2. Schwenk TL, Sheets KJ, Marquez JT, Whitman NA, Davis WE, McClure CL. Where, how, and from whom do family practice residents learn? A multisite analysis. *Fam. Med.* 1987; 19: 265-268.

Whom Do Your Resident Physicians Teach?

- A. Medical students**
- B. Other health professions students**
- C. Fellow residents**
- D. Patients and families**
- E. Others?**
- F. They do not teach at this time.**

In Which Environments Do Your Residents Teach?

- A. Hospital wards**
- B. Outpatient clinics**
- C. Classroom – large groups**
- D. Classroom – small groups**
- E. Other setting(s)?**

BRINGING EDUCATION & SERVICE TOGETHER (BEST)*

- **Randomized, controlled trial of a residents-as-teachers curriculum**
- **We enrolled 62 second-year residents in pediatrics, medicine and family medicine over two years.**

* Morrison EH, Rucker L, Boker JR, Gabbert CC, Hubbell FA, Hitchcock MA, Prislin MD. The effect of a 13-hour curriculum to improve residents' teaching skills: a randomized trial. *Ann Intern Med.* 2004;141:257-263.

BRINGING EDUCATION & SERVICE TOGETHER (BEST)

- **Intervention: a 13-hour longitudinal teaching skills curriculum ~ every 2 weeks for 6 months**
- **1^o outcome measure: 3.5-hour objective structured teaching examination pre- & post-intervention**
- **Residents randomized to intervention group outscored controls by 2.8 SD (95% CI, .43-.75; $p < .0005$).**

THE CURRICULUM*

1. **Orienting learners**
2. **Outpatient precepting**
3. **Bedside teaching**
4. **Giving feedback**
5. **Inpatient teaching**
6. **Teaching charting**
7. **Teaching procedures**
8. **Giving mini-lectures**

* Morrison EH, Hollingshead J, Hubbell FA, Hitchcock MA, Rucker L, Prislín MD. Reach out and teach someone: generalist residents' needs for teaching skills development. *Fam Med.* 2002;34:445-450.

www.residentteachers.com

- **All curricular materials for resident teachers can be downloaded free of charge.**
- **Curricula from other institutions are also included.**
- **An objective structured teaching examination can be obtained through the web site.**

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RESIDENTS' RETREAT

- 2-3 hour workshop on clinical teaching skills for senior residents or fellows
- May wish to combine residents from different departments
- Enjoyable exercise: “brainstorming” about qualities of good teachers
- May also administer the Clinical Teaching Perception Inventory or a learning styles instrument

CLINICAL TEACHING PERCEPTION INVENTORY*

- www.residentteachers.com
“Learn Your Teaching Style”
- 15-20 minute online tool, clarifies teaching style and offers recommendations

* Morrison EH, Hitchcock MA, Harthill M, Boker JR, Masunaga H. The on-line clinical Teaching Perception Inventory[®]: a “snapshot” of medical teachers. *Fam Med.* 2005;37:48-53.

BRAINSTORMING EXERCISE

- This is an example of an exercise you might try with your resident teachers.
- Think of one or two of your favorite teachers.
- They can be from your own medical training, or even from earlier educational experiences.
- What specific qualities made these teachers stand out?

REFLECTIONS

- What did you think of this exercise?
- How useful might it be for your residents or fellows?
- Do you have any variations on this them—or even an example of a completely different exercise—to share with the group?

Clinical Teaching Microskills

**Bringing Education &
Service Together (BEST)**



FIVE-STEP MICROSILLS MODEL OF CLINICAL TEACHING

Neher et al. model for clinical teaching with time constraints¹⁻³

1. Neher JO, Gordon KC, Meyer B, Stevens N. A five-step "microskills" model of clinical teaching. *J Am Board Fam Pract.* 1992;5: 419-424.
2. Furney SL, Orsini AN, Orsetti KE, Stern DT, Gruppen LD, Irby DM. Teaching the one-minute preceptor: a randomized controlled trial. *J Gen Intern Med.* 2001;16:620-624.

FIVE-STEP MICROSKILLS MODEL OF CLINICAL TEACHING

- **Basis: precepting encounters offer opportunities to teach ways of thinking as well as information**
 - **Recognizes “teachable moments”**
3. Teherani A, O'Sullivan P, Aagaard EM, Morrison EH, Irby DM. Student perceptions of the One Minute Preceptor and traditional preceptor models. *Med Teach.* 2007;29:323-7.

FIVE-STEP MICROSKILLS MODEL OF CLINICAL TEACHING

- **Step One: Get a Commitment**
 - “What do you think is going on with this patient?”
 - “What would you like to do?”
 - Even a hunch or guess is better for learning than no commitment.



FIVE-STEP MICROSKILLS MODEL OF CLINICAL TEACHING

- **Step Two: Probe for Supporting Evidence**
 - “What led you to that diagnosis?”
 - “Why did you choose that drug?”
 - Helps teacher identify what the learner does and does not know.
 - Should be done in a pleasant manner.

FIVE-STEP MICROSKILLS MODEL OF CLINICAL TEACHING

- **Step Three: Teach General Rules**
 - “If the patient has cellulitis, incision and drainage won’t help. That’s for an abscess, which you recognize by its fluctuance.”
 - Can skip if learner already knows general principles.



FIVE-STEP MICROSKILLS MODEL OF CLINICAL TEACHING

- **Step Four: Reinforce What Was Done Right**
 - “It was good that you considered the patient’s age when you prescribed that drug, because other drug classes can cause more side effects.”
 - **Must reward specific competencies.**

FIVE-STEP MICROSKILLS MODEL OF CLINICAL TEACHING

- **Step Five: Correct Mistakes**
 - “You could be right that you won’t harm the brachial artery when you draw that blood gas. But if you use the radial artery, you won’t risk cutting off the arterial supply to the whole arm.”
 - Have them self-critique first.
 - Best done in private? Be specific.

FEEDBACK SHOULD BE...

- **Constructive**
- **Timely**
- **Valid**
- **Specific**
- **Useful**

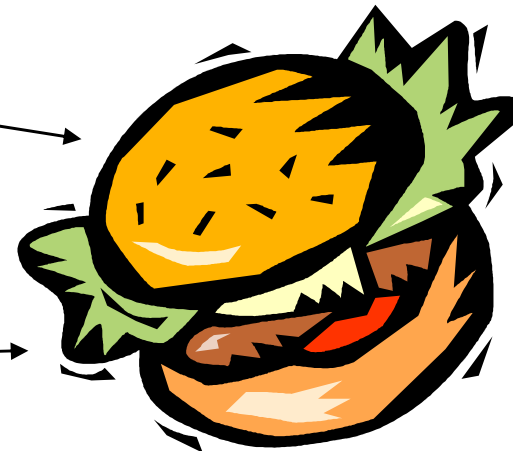


FEEDBACK SANDWICH

**Specific positive
feedback**

**Constructive
criticism**

**Specific positive
feedback**



MICROSKILLS DEMONSTRATION



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“INSIGHT” Approach to Giving Feedback

Inquiry

Needs

Specific feedback

Interchange

Goals

Help

Timing of follow-up session




INQUIRY

- **How does the learner think things are going?**
- **Listen to the learner's needs in detail.**
 - Listening attentively and thoroughly before commenting may be all you need to do, especially for minor/temporary problems.

NEEDS

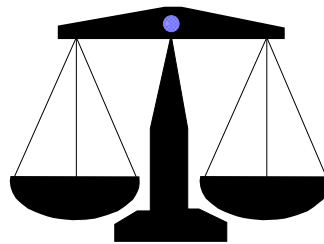
- **What does the learner feel s/he needs during this rotation?**
 - Ask the learner to define own learning needs.
- **Learners accept feedback better when they feel the teacher has first understood their perspectives.**

SPECIFIC FEEDBACK

- **Give your constructive feedback as specifically as you can.**
 - Start with specific positive feedback. 
 - The more learner-centered the feedback, the better it will go.
- **Verify the learner's understanding of the feedback you've given.**

INTERCHANGE

- **How can you best balance the learner's needs with yours?**
- **Thinking outside the box may help you both reach a “win-win solution”.**



GOALS

- **State any new goals you've just reached, or review existing goals.**
- **Verify that you both understand and agree on these goals.**



HELP

**Do any serious
problems merit a
“learning consultation”?**

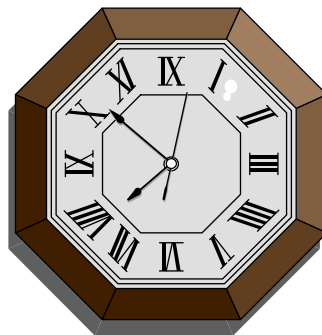
To Whom Might Learners Be Referred at UNAM?

(Please indicate all that apply.)

- A. Departmental leadership**
- B. Dean of student affairs or of
undergraduate medical education**
- C. Learning specialist**
- D. Employee assistance program**
- E. Chief resident or attending
physician**
- F. Others?**

TIMING OF FOLLOW-UP SESSION

- **Any final questions or comments?**
- **When would you and the learner like to meet again to go over how things are going?**



FEEDBACK DEMONSTRATION



How Would You Rate This Teaching Encounter?*

1. Poor (bottom 10-20% of teachers)
2. Below average (15-25% of teachers)
3. Average (25-35% of teachers)
4. Above average (15-25% of teachers)
5. Excellent (top 10-20% of teachers)

*Williams BC, Litzelman DK, Babbott SF, Lubitz RM, Hofer TP. Validation of a global measure of faculty's clinical teaching performance. *Acad Med.* 2002;77: 177-180.

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WORK ROUNDS ● SMALL GROUP TEACHING

**Bringing
Education &
Service
Together**



Learning Objective

After participating in this session, participants will be able to lead inpatient work rounds, incorporating teaching appropriate to each learner's level of training.

Small Group Teaching

May include:

- **Inpatient rounds**
- **Other small-group settings**
 - Problem-based learning sessions
 - Ambulatory rounds
 - Other groups

Challenges

- **Challenges of small-group teaching:**
 - Teacher must facilitate learning for **multiple learners** at once.
 - These learners may be from different training levels or from different disciplines.
- The senior resident can take the lead even if the attending physician is present.

A Mnemonic for Hospital Rounds

Learners

Microskills

Needs

Organization

Presentation

Questions

→ **Recall**

→ **Synthesis**

Teaching

LEARNERS

- Who are all your learners for this small-group discussion?
- Help create a **positive learning climate** by ensuring that everyone in the group knows each member's name, discipline and training level.

MICROSKILLS

- **Teach through questioning.**
- The “**five microskills**” model works in group teaching as well as in one-to-one precepting.
- Make sure each team member participates in the discussion.

NEEDS

- Briefly establish **learning goals** for rounds, starting with the learners.
 - Is there anything they especially want to learn today?
 - What are your goals for them?

ORGANIZATION

- How can you best **organize** rounds during the time you have?
- Take into account:
 - The number of patients to present
 - Other scheduling factors (clinics, etc.)
 - Learning needs of the team
 - “Teachable moments”

PRESENTATION

- When learners present, have team listen without interruption.
- **Set guidelines** for presentations:
 - Level of detail for **new patients**
 - **Ongoing patients**: one-sentence case summary, overnight progress, problem list review with today's plans

QUESTIONS

- Use the five “microskills” to maximize teachable moments:

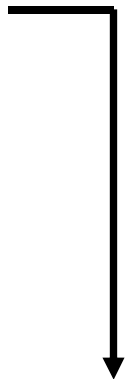
1. Get a commitment

2. Probe for supporting evidence

3. Teach general rules

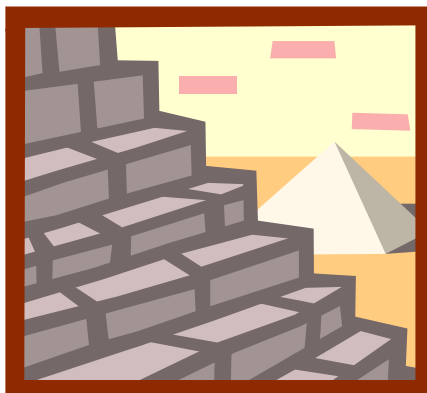
4. Reinforce what was done right

5. Correct mistakes



↳ RECALL

- Lower-order questions test learners' **recall of factual information.**
 - Example: “What is Murphy’s sign?”





SYNTHESIS

- Higher-order questions test learners' ability to **synthesize and analyze information**.
 - Example: “Given these physical findings, how would we now alter our differential diagnosis?”
 - Try to incorporate these “thinking questions” into the discussion.

TEACHING

- Discuss **resources** for the team's further learning:
 - Articles (which you can even bring in)
 - Online resources
 - Texts
- Tailor your recommendations to learners' individual training.



HOSPITAL ROUNDS DEMONSTRATION



A Mnemonic for Hospital Rounds

Learners

Microskills

Needs

Organization

Presentation

Questions

→ **Recall**

→ **Synthesis**

Teaching