



Resident As Teacher Hilary Sanfey



Overview

- Background
- Principles of adult learning
- What makes a good teacher?
- Documenting teaching activity
- Academy Resident As Teacher Program

Background

- Clinical competence positively correlates with teaching abilities
 - *S. Minor et al 2002*
- Teaching improves resident learning and knowledge acquisition
 - *M. Pelletier et al 1999*
- Residents feel a lack of teacher training
 - *KJ Sheets 1991*

Background

- Students note 33% education from residents.
 - *J.O. Busari et al 2002 & 2004.*
- Residents contribute to student education:
 - More contact.
 - Better position to evaluate.
 - More approachable.

Principles of Adult Learning

- Adult learners are motivated by intrinsic factors and more likely to learn when:
 - Instruction is **problem** centered.
 - In a **supportive** environment.
 - Learning is **experience** orientated.
 - Learning is **active** versus passive.
 - Effective **feedback** is provided.

Problem Centered Instruction

- Emphasizes learning of concepts not just facts
- Provides opportunity for practicing problem –solving skills
- Tips
 - Think aloud as you reason out problems and management
 - Pose case problems
 - Make full use of the teachable moment

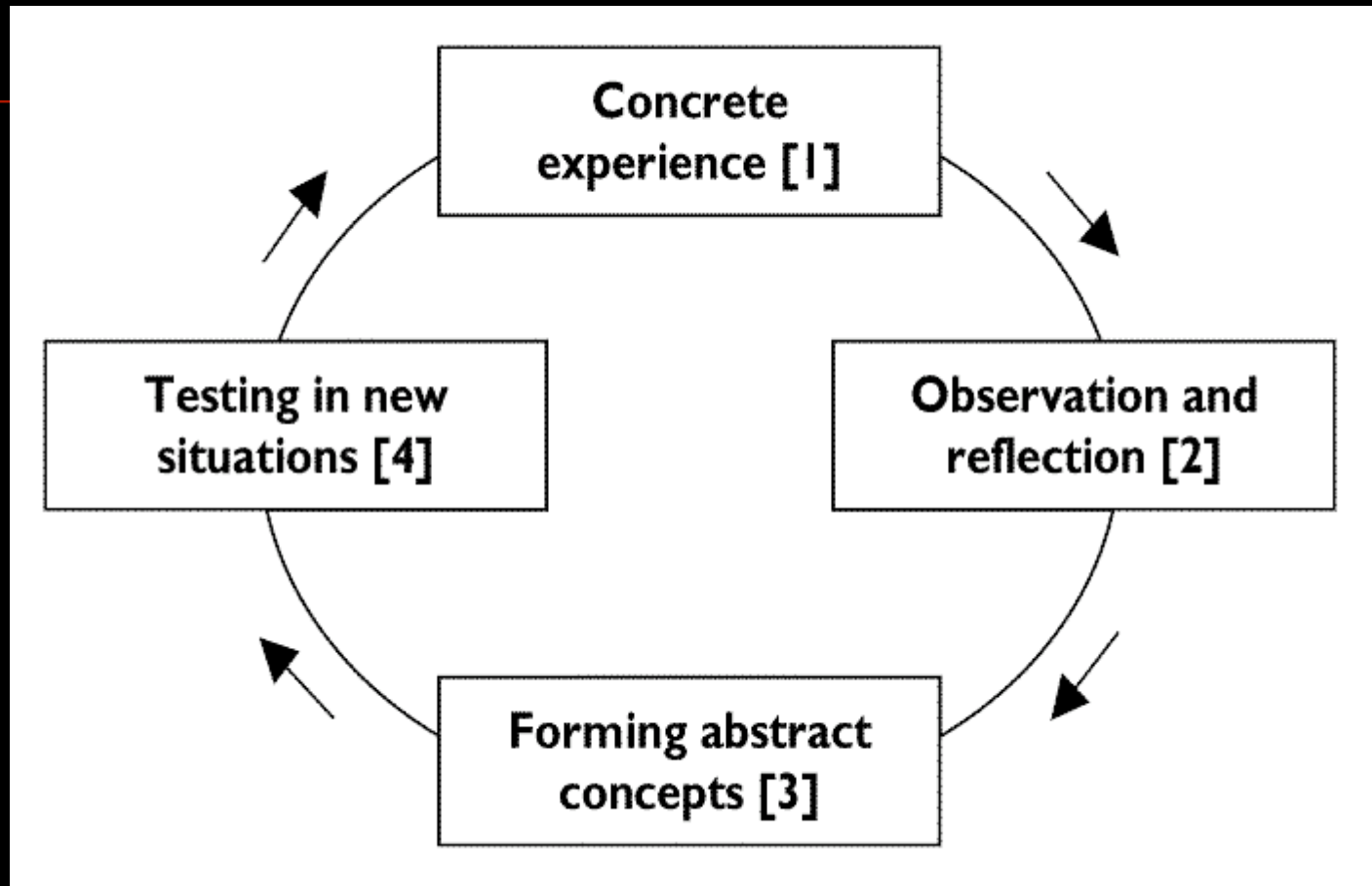
Supportive Environment

- Non-threatening / non-judgmental environment
- Mutual trust and respect
- Encourages self-confidence and initiative
- (Anxiety may be a motivator!)
- Tips
 - Introduce yourself and learn names
 - Be available and approachable
 - Respond constructively to problems or questions

Experience Orientated Instruction

- Links information being taught to real life
- Advances learners through stages of skill acquisition & reinforces learning
- Tips
 - Teaching a procedure:
 - Demonstrate it
 - Explain each step
 - Provide supervised practice
 - Give feedback
 - Be patient

Kolb Cycle : Experiential Learning



Active Learners

- Learners more motivated to learn.
 - Attention is maintained.
 - Retention enhanced.
- Engage in critical thinking and inquiry.
- Tips.
 - Provide participation: brainstorming, role-playing, demonstrating, questioning.
 - Use open ended questions to promote critical thinking.
 - Give learners time to think and respond.
 - Relate new information to previous knowledge.

Feedback

Interactive process aimed at reinforcing positive behavior and providing specific guidelines for the future

Advantages of Feedback

- Clarifies areas needing improvement
- Prevents errors from becoming habitual
- Provides student with an accurate perception of their own performance
- Conveys attitude of concern and interest between instructor *and* learner

Feedback Guidelines

- **FAST**
 - **F**requent
 - **A**ccurate
 - **S**pecific
 - **T**imely

Is There A “Right Time” ?

- Waiting a short time allows student / resident to develop self-appraisal skills
- Longer delays reduce effectiveness but may be beneficial if the student / resident (or teacher!) is upset
- Emergencies may preclude (or necessitate) immediate feedback

Obstacles To Effective Feedback

- Feedback based on goals different from those of the student/resident
- Perceived as personal judgment
- Inconsistent messages
- Inappropriate environment
- Time constraints

The Feedback Session

- Create appropriate environment
 - supportive / private / comfortable
- Needs assessment : gather and confirm data
 - Diagnose the problem (if necessary)
 - Technical /cognitive / behavioral
 - Acute / chronic
- Orient student/resident to the focus of the session
- Elicit opinion and encourage self-reflection
- Avoid generalization: apply points made to specific situation (s)
- Reaffirm specific plan of action and follow - up

What Makes a Good Teacher?

■ Problem

- What are the characteristics of a good teacher in the opinions of our medical students?

■ Methods

- Reviewed nominating letters for resident teaching awards
- Identifiers deleted
- Identified themes and coded responses using a constant comparative analysis

Results

- 25 students wrote 37 letters for 6 residents
 - 931 comments
- Themes
 - Principles of learning
 - Professional development
 - Environment

Learner Centered

- Took time to:
 - Ask about my experiences to date and identify gaps in knowledge.
 - Discuss topics with which we felt we needed help.
 - Get to know the students.
 - Relate to us as human beings.
 - Meet with students to get feedback regarding what the residents could do to make the rotation better.

Supportive Environment

- Encouraged other residents and attendings, to teach and not forget students there to learn,
- Would eat with students during meals and take time to relate to us as human beings.
- When he was away for a week he called several times to talk with the students about how things were going.
- He invited us to his home.

Experience Orientated

- Every day took the time to discuss a topic with me and in return, expect me to take part in teaching the third year students.
- During rounds he demanded my taking ownership of my patients, and in return he gave me more independence

Active Learning

- He is excellent at teaching students and colleagues in a way that facilitates learning and provokes further inquiry.
- He uses the art of “pimping” in a manner differently than I have previously encountered; not to make the student look or feel foolish, or to make the resident look or feel wise.
- Rather, the purpose is solely to facilitate active learning in the student, and teacher in a fun and interactive way.

Context

- He took time on rounds to help us understand why certain treatment decisions were being made, how we should approach lab and radiology results, and helped us to see the bigger picture in patient care.
- He would utilize every opportunity to teach in a clinical context.
- He spent time with me every day teaching about various topics, patiently explaining important concepts in a way that made them easy to understand and apply to clinical medicine.

Feedback

- Gave meaningful feedback rather than, "you're doing fine."
- Would talk to us individually about our presentation styles and how we could improve.
- As a result of feedback I could see a difference in how I presented when I started the rotation and at the end of the rotation.
- Provided critical assessment of our performance throughout the rotation.

Motivation

- We understood his level of commitment and wanted our effort to reflect his own.
- No other resident with whom I have worked has shown more interest in teaching and encouraging his students to know more.
- His high expectations and no-nonsense attitude encouraged us to know our patients very thoroughly but to present them very clearly and succinctly on rounds. .

Outcomes

- He gave us a great foundation, which we were able to build on and succeed in our shelf exam.
- This not only helps me on my way to becoming a physician, but this also helps our patients.
- I journeyed a long way in a very short amount of time with him.
- He helped improve my presentation skills.
- His encouragement was more than passive; it is no coincidence that we won the pimp-off.

Practical & Relevant

- Unlike residents who say, “you need to know this for the exam,” he would say, “you need to know this, because if you don’t you could hurt someone.”
- I appreciated his constant focus on making us good doctors, and not just giving us answers for a test.
- Even when he was busy, he took a couple of minutes to explain the ECG that he was interpreting or why he was ordering a particular lab on his patient.

Role Model

- His most unforgettable quality relates to his interactions with patients. He conversed with them in language that was clear and understandable, encouraging patients to ask questions. Even under difficult circumstances, he maintained a straightforward, open manner. It was always clear that excellent patient care was the priority.
- My role as a competent and caring physician, no matter what field I decide to pursue, will be more adequately filled having had him as a teacher and role model.

Conclusions

- Characteristics of a good teacher:
 - Learner centered (meets individual needs).
 - Supportive environment.
 - Effective feedback.
 - Active learning.
 - Experiential learning.
- The characteristics of a good teacher described by medical students are consistent with those described in the literature.

Competencies

- Patient care
- Medical knowledge
- Interpersonal skills and communication
- Professionalism
- Practice based learning and improvement
- Systems based practice

Patient Care

- Best Practice

- Inform student of expectations and role at beginning of rotation
- Make students aware they team members & assign patients care responsibilities

- Worst Practice

- Using student as retractor without any teaching
- Leaving student unattended in new procedures or beyond their skill level

Medical Knowledge

- Best Practice.
 - Ask questions.
 - Discuss predetermined topics.
 - Provide resources for information.
- Worst Practice.
 - Comparing students' knowledge in front of both students.
 - Focus on “getting the job done” to detriment of teaching opportunities.
 - Educate by the “that’s just the way we do it” method.

Interpersonal Skills & Communication

■ Best Practice.

- Define expectations early in rotation.
- Introduce students to patients and other team members.
- Provide feedback.
- Demonstrate respect by resolving conflict privately.

■ Worst Practice.

- Public ridicule of students.
- Having overly scientific discussions with families.
- Creating a hostile environment among other specialties.
- Ignoring patient concerns.

Professionalism

- Best Practice.

- Introduce students and describe their role to patients.
- Make students feel like active members of surgical team.
- Observe dress code.

- Worst Practice.

- Taking credit for student's work.
- Introducing student as "Doctor."
- Allowing interactions with pharmaceutical representatives to deter from practicing evidence-based medicine.

Practice Based Learning & Improvement

■ Best Practice

- Observation and feedback of student's procedural skills
- Adapt practices based on current literature
- Student attendance in M&M

■ Worst Practice

- Not communicating plan
- No evaluation of student's skills
- Excluding student from procedures or patient discussions
- Non-critical reading of literature

Systems Based Practice

- Best Practice.
 - Adequate sign out.
 - Teach students to prioritize .
 - Discuss cost effectiveness when considering tests / therapies.
 - Involve students in discharge planning.
- Worst Practice.
 - Inappropriate interactions with medical personnel.
 - Misrepresenting patient's condition to expedite tests.
 - Ordering tests that will not change patient management without regard for the costs.

Documenting Teaching Activity

- Teaching Portfolio:
 - Supplement to CV.
 - Encourage self – evaluation and self reflection.
 - Document teaching:
 - Effort / Improvement / Excellence.
- Contains:
 - Teaching Activity.
 - Outcome measures.

Academy of Distinguished Educators

- Founded in 2003.
- Recognize and reward outstanding teachers.
- Excellence in teaching a domain of academic advancement.
- Develop effective faculty educators across the academic medical center.

Teaching Activity

Direct teaching	Rounds / OR / clinic
Curriculum Development	Innovations
Assessment	Oral exams
Scholarship	Talks, handouts, publications, videos
Administration	Committee
Professional Development	Courses taken
Mentorship / advising	Names, duration

Outcomes

- Letters of support
- Evaluations
- Teaching Awards

Academy

- Resident As Teacher (RAT) Subcommittee
 - Academy members
 - Resident advisors
- Co-chairs
 - Julia Iezzoni, MD
 - Linda Waggoner-Fountain, MD
- To develop the skills of the resident as teacher

RAT Program



- Needs assessment
 - Survey residents / faculty
- One- day / half day sessions
- Residents & fellows
- Ultimately include medical students

Curriculum: Teaching Skills

- How to give feedback
- Problem based learning
- Teaching materials and methods
 - Simulation / skills labs
- Teaching in special situations
 - OR
 - Clinic
 - Rounds
 - Small group
 - lectures

Curriculum: Professional Development

- Emotional intelligence
- How to be a mentor / advisor
- Managing adverse events / critical event
- Hidden curriculum

Curriculum : Leadership

- Team building
- Managing conflict
- Team dynamics

Resident As Teacher

- Resident Opportunities
 - Role model
 - Career guidance
 - Teacher
 - Mentor
 - Shadow programs
 - Teaching awards