FELLOWSHIP IN MEDICAL EDUCATION
Seminar I: Teaching and Learning in Medicine
August 31, 2009 - February 8, 2010
Mondays, 12:30-3:00 PM
David Geffen School of Medicine at UCLA

Objectives:

In the seminar, our goal is to stimulate the discussion of how people acquire knowledge, skills, and attitudes and what types of experiences can be designed in medical education to maximize learning of these competencies. In addition, we hope that you will become a more reflective teacher, aware of the aspects of the setting, the content, the teaching skills, and the activities that you can use to maximize learning in your particular area of interest. During the seminar, you will be expected to:

1. Apply general principles of learning drawn from theoretical perspective such as, cognitive psychology, social constructivism, and motivation to the analysis of teaching and learning situations in medicine.
2. Describe current innovations in medical education.
3. Analyze the type of assessment tools needed to evaluate specific competencies.
4. Develop a curriculum designed to capitalize on these general principles of learning.
5. Reflect on our own beliefs and skills as teachers.

Format:

The seminar consists of 10 problem-based learning modules. Each module begins with the discussion of a problem situation in medical education that will raise issues about the ways in which we educate our residents and medical students. You will be required to read one assigned article and one selected article in preparation for analysis and resolution of the problem. You are required to write a 500 word reflective essay in preparation for each session based on the required and optional readings and post it on ANGEL course management site for others to review by the Saturday before each session. There will also be a series of optional workshops in between regularly scheduled sessions that focus on improving specific teaching skills. We hope that you find some that interest you.

The final requirement for the seminar is to design a curriculum of any size and scope on a topic of your choosing. On the final day of the seminar (February 8, 2010), you will present your plan to the group for discussion and feedback.

Seminar Directors:

LuAnn Wilkerson, Ed.D.
Sr. Associate Dean for Medical Education
Professor of Medicine
David Geffen School of Medicine at UCLA
310-794-7018
lwilkerson@mednet.ucla.edu

Anju Relan, Ph.D.
Director, Instructional Design and Technology Unit (IDTU)
Associate Professor of Medicine
David Geffen School of Medicine at UCLA
310-206-0572
arelan@ucla.edu

Faculty:

Yue Ming Huang, Ed.D., Assistant Professor of Anesthesiology; Simulation Specialist, ED&R
Carl Stevens, M.D., M.P.H., Professor of Medicine; Director of Curriculum Development, ED&R
Paul Wimmers, Ph.D., Assistant Professor of Medicine; Associate Director of Research, ED&R
INTRODUCTION TO SEMINAR I; LEARNING TO LEARN

Discussant: LuAnn Wilkerson, Ed.D.

We often begin our work at becoming better teachers by focusing on what we should do as teachers. Perhaps a more appropriate place to begin is to think about the learners. What do we know about learning? In this session, we will begin by reflecting on our own experience as learners. By sharing our stories with one another, we will attempt to generate a list of the characteristics of powerful learning experiences, consider related findings from educational theory and research, and discuss implications for us as teachers.

Pre-Meeting Assignment:


Writing: Write a one-page narrative on the following topic and bring a copy with you to the first session.

All of us regularly experience a need to know something new in our professional and personal lives. Sometimes we satisfy this learning need quickly by asking a colleague or checking a reference. At other times, we become engaged in much larger efforts to add to our knowledge, to develop new skills, or to rethink our attitudes. Think for a few minutes about this latter type of learning experience.

Recall a specific instance in which you were extremely successful as a learner. It may be recent or in the distant past. It can be clinical or non-clinical. It can be about learning something in medicine or in other aspects of your life. It can be formal or informal.

Using no more than one page, describe that experience as fully as possible. The story is about you and your reaction to the experience but you should try to address the following questions directly or indirectly as your story unfolds:

1. What stimulated your desire to learn?
2. What was your goal in this learning endeavor?
3. In what activities did you engage as you learned?
4. Who else was involved and in what way?
5. How did you decide when you had accomplished your goal?

Objectives:

- To explore personal theories of learning that you have derived from your own experience as a learner.
- To identify common themes among the personal learning theories held by members of the group.
- To begin to develop a community of learners with the shared goal of continuously improving medical education.
THEORIES OF LEARNING

Discussant: LuAnn Wilkerson, Ed.D.

How in a typical clinical teaching encounter might we apply current findings about learning to increase students’ or residents’ deep understanding and encourage transfer to new settings?

Pre-Meeting Assignment:

📖 **Reading:** Patel VL, Yoskowitz NA, Arocha JF. Towards effective evaluation and reform in medical education: a cognitive and learning sciences perspective. *Advances in Health Sciences Education*, January 24, 2008 (online prepublication)

📖 **Optional Reading:** Select one from the recommended list. PDF files of these articles are posted on ANGEL.

✍️ **Writing:** Based on the discussion of our personal learning theories, focus on one aspect of the Required article and select (or locate your own) optional articles. Write a 500 word reflective essay on how your teaching uses – or might better use -- this aspect of learning theory. Begin your essay with a brief overview of the article. Post your response to ANGEL by **Saturday, September 19th**.

Objectives:

- To describe several current learning theories drawn from the learning sciences.
- To identify implications of these theories for teaching in medical education settings.
FROM STUDENT TO DOCTOR: HOW DO WE BECOME EXPERTS?

Discussant: Paul Wimmers, Ph.D.

During medical school and residency students are expected to progress from novice to expert performance. What are the characteristics of expert performance in medicine and what types of educational experiences are needed to support this transition?

Pre-Meeting Assignment:


✍ **Writing:** Select one article from the elective list and write a 1/2 – 1 page description of several points of its applicability or lack of applicability to your teaching. Post your response to ANGEL by **Saturday, October 3rd**.

Objectives:

- To identify general characteristics of expert performance and to understand why the study of expertise is important for teaching.
- To develop educational experiences which promote the development of expertise.
The practice of medicine is undergoing a paradigm shift while our educational programs remain rooted in the past. Multiple blue ribbon panels have called for the transformation of medical education in the United States, particularly clinical education. The concerns are legion: time in training is controlled by historical precedence, not time to competency; chronic disease is the most prevalent problem that future physicians will address; training occurs in locations unlike those of practice; health care professionals are trained separately but must work together; patient safety requires a “cockpit” management mentality in hierarchical systems of care; patient-centered care is the exception not the rule; broad variability in practice occurs when evidence is ignored; evidence-based medicine is the new basic science; clinical productivity has squeezed out education; patients lack access to care, etc. In this session, come prepared to think big.

What do we need to do to create new educational programs for students and residents that will correct these deficiencies while educating for the new medicine?

Pre-Meeting Assignment:


- **Writing:** Select one article from the elective list and write a 1/2 – 1 page description of several points of its applicability or lack of applicability to your teaching. Post your response to ANGEL by Saturday, October 17th.

Objectives:

- To consider what is missing from current educational programs in the health professions in order to prepare practitioners for the new health system.
- To design educational programs to promote the six aims of the “new health system.”
Clerkship and program directors all over the country are investigating means of obtaining reliable feedback on the variety of learning experiences in ambulatory clinics and ward rotations. Solutions are also being sought for real-time and just-in-time access to references to improve evidence-based care. How can new, emerging computing technologies help us to address these issues?

Pre-Meeting Assignment:


✍️ **Writing:** Select one article from the elective list and write a 1/2 – 1 page description of several points of its applicability or lack of applicability to your teaching. Post your response to ANGEL by **Saturday, October 31st.**

🔍 **Review one of the selected Web-based programs.**

**Objectives:**

- To discuss the role of computers in medical education and medical care.
- To consider strategies for implementing computer-based instruction with more traditional instructional approaches.
PROBLEM-BASED LEARNING

Discussant: LuAnn Wilkerson, Ed.D.

If you decide to change the lectures in your didactic curriculum into problem-based learning sessions, you will need to develop teaching cases, revise the curricular schedule, explain this new idea to your colleagues, and prepare the learners for self-directed learning. Is this really so different from other forms of case-based teaching?

Pre-Meeting Assignment:


Writing: Select one article from the elective list and write a 1/2 – 1 page description of several points of its applicability or lack of applicability to your teaching. Post your response to ANGEL by Saturday, November 14th.

Objectives:

- To distinguish problem-based learning from more traditional forms of teaching with cases.
- To identify essential teaching skills, learner skills, and case formats.
LEARNING FROM SIMULATIONS

Discussant: Yue Ming Huang, Ed.D.

With increasing attention to patient safety, medical educators are concentrating on building systems for learners to increase practice and feedback on critical skills. Airline pilots have relied on flight simulators for years before taking real passengers up in the air. Are there similar simulators that can be used to provide repeated practice and feedback for your students or residents? If not, what might you design?

Pre-Meeting Assignment:


✍️ Writing: Select one article from the elective list and write a 1/2 – 1 page description of several points of its applicability or lack of applicability to your teaching. Post your response to ANGEL by Saturday, November 28th.

Objectives:

- To explore factors that determine successful use of computer simulations and cases in enhancing clinical competencies.
- To examine the potential of case-based simulations for clinical teaching and assessment.
- To learn about the range and nature of simulations available in a variety of clinical specialties.
As educational leaders, you are responsible for some aspect of the curriculum in your department. What is a curriculum? As part of the seminar, you need to develop a new curriculum for a topic and group of your choice. Your project can be as narrow as a single session and as complete as a total residency program!

Pre-Meeting Assignment:


Writing: Write and POST a description of your proposed curricular project. Check the published literature (PubMed: [http://www.pubmed.gov](http://www.pubmed.gov)) to see how your topic is being addressed elsewhere. Post your description to ANGEL by Saturday, December 12th.

DEADLINE: On February 8, you will be responsible for a 10 minute presentation and a 3-page written summary of your curriculum plan.

Objectives:

- To consider strategies for identifying the competencies that we are seeking to produce in our learners.
- To design a curriculum that will assist learners in developing those competencies.
Monday, January 11, 2010

ISSUES IN CLINICAL EDUCATION

Discussants: LuAnn Wilkerson, Ed.D.

Multiple blue ribbon panels have called for the transformation of clinical education in the United States. The concerns are legion: time in training is controlled by historical precedence, not time to competency; chronic disease is the most prevalent problem that future physicians will address; training occurs in locations unlike those of practice; health care professionals are trained separately but must work together; patient safety requires a "cockpit" management mentality; undergraduate, graduate, and continuing medical education are distinct rather than interconnected; evidence-based medicine is the new basic science, etc. In this session, come prepared to think big.

Pre-Meeting Assignment:


✍ Writing: Select one article from the elective list and write a 1/2 – 1 page description of several points of its applicability or lack of applicability to your teaching. Post your response to ANGEL by Saturday, January 9th.

Objectives:

- Analyze the degree to which the structure of clinical education needs to be changed to meet the future needs of practice.
- Design a new student clerkship, residency rotation, or CME course that you believe would better meet the learning needs and patient care needs a chosen domain.
Monday, January 25, 2010

DESIGNING COMPETENCY ASSESSMENTS

Discussant: LuAnn Wilkerson, Ed.D.

As clinical competence is multi-dimensional, the assessment of clinical performance needs to use multiple approaches, multiple observations, and multiple observers in the process to achieve the goal of a valid, reliable, and comprehensive evaluation. This session will review various methods and sample tools of performance assessment jointly suggested by the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS). Issues and barriers in using clinical performance assessment for evaluating the competency of individual physicians will also be discussed.

Pre-Meeting Assignment:

✔ Review the ACGME Toolbox.


✍ Writing: Select one article from the elective list and write a 1/2 – 1 page description of several points of its applicability or lack of applicability to your teaching. Post your response to ANGEL by Saturday, January 23rd.

Objectives:

- To describe various methods that may be used in the assessment of clinical performance.
- To critique psychometric qualities, feasibility, and practicality of each of the commonly used assessment methods as demonstrated by existing research findings.
- To develop tools that may be used for assessing clinical performance in the area of practicing specialty.
CURRICULUM DESIGN PRESENTATIONS

Pre-Meeting Assignment:

DEADLINE: POST a 3-page curriculum plan following the required template and a 10 minute PowerPoint presentation by MONDAY, FEBRUARY 1, in order to benefit from formative feedback prior to your presentation.
FELLOWSHIP IN MEDICAL EDUCATION
Seminar II: Research and Evaluation in Medical Education
February 22, 2010 - June 21, 2010
Mondays, 12:30-3:00 PM

Seminar Directors:

Sebastian Uijtdehaage, Ph.D. Paul Wimmers, Ph.D.
Director of Research & Evaluation, ED&R Associate Director of Research, ED&R
Associate Professor of Medicine Assistant Professor of Medicine
David Geffen School of Medicine at UCLA David Geffen School of Medicine at UCLA
310-794-9009 310-267-2798
bas@mednet.ucla.edu pwimmers@mednet.ucla.edu

Please mark your calendar with the following session dates:
February 22
March 8
March 22
April 5
April 19
May 3
May 17
June 7
June 21