The Rabkin, Mount Auburn, and Harvard Medical School Academy Fellowships in Medical Education Curriculum

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The sessions are presented below in the approximate order in which they are offered.

First session: Welcome!

During this initial session, we will:

- **become acquainted with each other**
- **create a mutual educational contract**
- **discuss the curriculum and structure of the fellowship**
- **highlight the importance of creating an educator's portfolio**
- **share teaching philosophy statements**
- **discuss the distributed summer readings with a focus on characteristics of effective teaching.**

Summer Readings:

- **Matsen R. The way to teach. In: Matsen R. *Let it be a dance, words and one liners.* Carmel, CA:Carmel Pub Co; 2001.**
- **Kruszewski S. A silence broken. Harvard Medical Alumni Bulletin. Autumn, 1998**
- **Krauthammer C. A man for all seasons. Washington Post. Aug. 25, 2000.**
- **Fitzgerald FT. Curiosity. Ann Intern Med. 1999;130:70-72.**
- **Drucker PF. Managing oneself. *In Management Challenges for the 21st Century.* New York, NY: HarperCollins Publishers; 1999:161-196.**
- **Spiro E. A code of ethics for teaching medicine. In: Spiro H, McCrea Curnen MG, Peschel E, St. James D. eds. *Empathy and the Practice of Medicine.* New Haven, CT: Yale University Press;1993.**

References for Educator's Portfolio:

- ***Constructing an Educator's Portfolio: Introduction.* Handout from Beth, Charlie, and Lori**
- **Thomas P. *Documenting your scholarship in teaching.* Handout from East Carolina University School of Medicine's Academic Skills for Medical School Faculty Workshop Series, February 2000.**

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Session: Historical Issues in Medical Education

Session Goals: To discuss the history and major movements within American medical education over the past century and to consider current challenges facing us today.

Please focus on your assigned theme as you read Kenneth Ludmerer's text so you can contribute to the discussion as a "theme resource person."

Readings:

- **K. Ludmerer. *Time to Heal.* Oxford, England: Oxford University Press; 1999.**

  Themes:

  - the financing of academic medicine
  - the ascendancy of research
  - the social contract of medical education
  - the external pressures on academic health centers
  - the internal dilemmas of academic health centers
  - the evolving medical school curriculum

Additional required readings:

- **Cooke M, Irby D, Sullivan W, Ludmerer K. American medical education 100 years after the Flexner Report. N Engl J Med. 2006;355:1339-44.**
- **Tosteson DC. Learning in medicine. N Engl J Med. 1979;301:690-694.**

Session: Harvard Medical School Today *and* Principles of Adult Learning

Session Goals: To (1) understand the current Harvard Medical School curricular structure and medical student course requirements; (2) discuss the major assumptions underlying adult learning theories (andragogy); (3) reflect on how each of us learns best.

In-class Activity:

Consider the following questions as you reflect on the readings:
- **What settings or context help me learn best?**
- **What frame of mind facilitates my learning?**
- **What resources do I need?**
- **What do I need from other people to help me learn?**

Readings:

- **Knowles M, Holton EF, III, Swanson RA, eds. *The Adult Learner*. Sixth Edition. Amsterdam: Elsevier Inc; 2005.**
  a. **Chapter 1: Introduction**
  b. **Chapter 4: A Theory of Adult Learning: Andragogy**

c. **Chapter 5: Theories of Teaching**
d. **Chapter 7: Andragogy in Practice**

- **Mann KV. Thinking about learning: implications for principle-based professional education. J Cont Educ Health Prof. 2002;22:69-76.**
- **Dreyfus HL, Dreyfus SE. Five steps from novice to expert. In: *Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer.* New York, NY: The Free Press;1986:16-51.**

References:

- **Gerrity MS. *Principles for facilitating adult learning.* Handout from the Department of Medicine, Oregon Health Sciences University.**
- **Armstrong E, Parsa-Parsi R. How can physicians' learning styles drive educational planning? Acad Med. 2005;80:680-684.**

Useful Websites:
http://www.gwvirginia.gwu.edu/library/guides/hrd_elp/adult_learning_websites.htm

http://honolulu.hawaii.edu/intranet/committees/FacDevCom/guidebk/teachtip/teachtip.htm

Session: Applying Adult Learning to Clinical Teaching

Session Goals: To discuss adult learning strategies that apply to clinical teaching.

In-class Activity:

Come prepared to discuss which aspects of the readings resonate with your own clinical teaching experiences. Think about how you might apply some of these principles to an upcoming teaching session.

Readings:

- **Parsell G, Bligh J. Recent perspectives on clinical teaching. Med Educ. 2001;35:409-414**
- **Ende J. What if Osler were one of us? J Gen Intern Med. 1997 (suppl 2);12:S41-8.**
- **Pratt D, Magill M. Educational contracts: A basis for effective clinical teaching. J Med Educ. June 1983;58:462-467.**

References:

- **Peabody FW. The care of the patient. JAMA. 1927;88:877-882.**
- **Lake F, et al. Teaching on the run series: Tips 1 thru 14. MJA. 2004-2006**
- **Tosteson DC. Learning in medicine. N Engl J Med. 1979;301:690-694.**
- **Spencer J. Learning and teaching in the clinical environment. BMJ 2003;326: 591-4.**

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Session: On Teaching

Session Goals: To discuss the essential characteristics of effective teachers.

In-class Activity:

Please come prepared to share a story about one of your memorable teachers.

Readings:

- **Burke C. Tulips, tinfoil and teaching: journal of a freshman teacher. In: Christensen CR, Garvin DA, Sweet A. *Education for Judgment*. Boston, MA: Harvard Business School Press; 1991:37-68.**
- **Ratzan R. On teachers. N Engl J Med. 1982;306:1420-1422.**
- **Wasserman S. How I taught myself how to teach. In: Barnes LB, Chirstensen CR, Hansen AJ, eds. 3rd ed. *Teaching and the Case Method: Instructor's Guide.* Boston, MA: Harvard Business School Press; 1994:359-366.**
- **Smith R. Thoughts for new medical students at a new medical school. BMJ 2003;327:1430-1433.**
- **Pinsky LE, Monson D, Irby DM. How excellent teachers are made: Reflecting on success to improve teaching. Adv Health Sciences Educ. 1998;3:207-215.**
- **Duncan D, Singel Southon A. Six ways to discourage learning. The University of Chicago Center for Teaching and Learning Web site. Available at: www.aas.org/education/publications/sixways.html. Accessed July 27, 2008.**

Assignment:
The book *Curriculum Development for Medical Education: A Six-Step Approach* by Kern DE, et al. is widely applicable to the field of medical education. To help you develop a framework for your project, we ask that you consider how Kern's first step, "problem identification," applies to your fellowship project. Please come prepared to define the educational or health care problem that you intend to address with your project. We have included a *Project Management Worksheet #1* under the Project Management Tab in your syllabus to guide your thoughts. Please note that subsequent reporting of your project will follow this six-step approach.

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Session: Curriculum Development and Curricular Issues in Medical Education.
Project Report: Step One (Problem Identification)

Session Goals: To discuss step one of the Fellowship project and to discuss an approach to developing and evaluating curricula.

Fellows turn in the Project Management Worksheet #1 found under the Project Management Tab in the syllabus.

In-class Activity:

Serving as a peer consulting team, the group will suggest educational approaches for each fellow's identified problem.

Readings:

- **Kern, D. et al. *Curriculum Development for Medical Education: A Six-Step Approach*. Baltimore, MD: Johns Hopkins University Press; 1998.**
- **Ratnapalan S, Hilliard R. Needs assessment in postgraduate medical education: A review. Med Ed Online. 2002;7:8.**

References:

- ***Effective use of Performance Objectives.* Teacher & Educational Development, University of New Mexico School of Medicine website.,Available at: http://hsc.unm.edu/som/ted/residentteachers. Accessed July 23, 2008.**

- **Thomas PA, Kern DE. Internet resources for curriculum development in medical education: An annotated bibliography. J Gen Intern Med. 2004;19:599-605.**

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Sessions: Research Methods in Medical Education

These sessions are dispersed throughout the curriculum and are facilitated by faculty with expertise in health services and medical education research.

Session Goals: To (1) Discuss a variety of research designs and methods that can be used to evaluate learner and programmatic outcomes in medical education; (2) Learn how to write a research prospectus; (3) Provide expert and peer feedback on each Fellows' project and evaluation plans.

Session activities:

Examples of various study designs and methods will be discussed in class. Each Fellows' project will be reviewed within the context of examples from the medical education research literature. In subsequent sessions, Fellows' projects and research design will be discussed in depth. A brief overview of statistical analysis will also be presented.

Overview of the Readings:

The selection of articles (see list below) includes recent research on diverse topics in medical education. The articles have been chosen to illustrate the diversity of methods that investigators have brought to bear on the problems before them. While the topics themselves are interesting and important, our main interest in these papers is to better understand the strengths and weaknesses of various research approaches, and to see how they might be models for research projects you are thinking of conducting about the effects of curricular interventions or about the impact of medical education on medical students and doctors.

These articles will lay the foundation for how you approach your own fellowship projects for this coming year. Please pay special attention to research approaches that you think you might implement. However, also remember that we want you to acquire an understanding of how alternative methods might be better (or worse) for what you actually intend to do.

In class, we will discuss the methods employed by each of these articles, providing an introduction to the gamut of methods used in medical education research.

The Medical Education Research section of your syllabus includes one article for each method, except for survey methods, where three illustrative articles are included. Please also find additional cited examples for your future reference.

Readings:

Surveys
The most common methodology used by medical education researchers, and sometimes the most direct, is to simply survey a group of people and ask them questions. However, issues such as the design of the survey instrument, the nature of the sample, and ways in which causal inference in such research might be enhanced are not trivial.

*Reed DA, Kern DE, Levine RB, Wright SM. Costs and funding for published medical education research. JAMA. 2005; 294:1052-1057.

*Jonassen, J. A. and K. M. Mazor. 2003. Identification of physician and patient attributes that influence the likelihood of screening for intimate partner violence. Acad Med. 2003; 78:S20-S23.

*Collier, V. U., J. D. Mccue, A. Markus, and L. Smith. Stress in medical residency: Status quo after a decade of reform? Ann Intern Med. 2002; 136:384-90

Ferry LH, Grissino LM, Runfola PS. Tobacco dependence curricula in U.S. undergraduate medical education. JAMA. 1999; 282:825–829

Vidyarthi A, Katz P, Wall S, Auerbach A, Wachter R. Educational Impact of Duty Hour Reduction. Acad Med. 2006; 81:76-81.

Cohort Studies

Cohort studies typically impanel a sample of learners and evaluate how various "exposures" are associated with various outcomes. Typically, the sample is prospectively followed for a period of time and outcomes are measured at a later point than the exposures, though cohort studies can be retrospective as well. These studies can be descriptive or can assess more complex ideas about the educational process. They are a very common methodological approach in educational research.

*Fahrenkopf A, Sectish T Barger L et al. Rates of medication errors among depressed and burnt out residents: prospective cohort study. BMJ. 2008;336:488-491.

White, C. B., H. M. Haftel, J. A. Purkiss, A. S. Schigelone, and M. M. Hammoud. Multidimensional effects of the 80-hour work week at the University of Michigan Medical School. Acad Med. 2006; 81:57-62.

Davis, B. E., D. B. Nelson, O. J. Z. Sahler, F. A. Mccurdy, R. Goldberg, and L. W. Greenberg. Do Clerkship Experiences Affect Medical Students' Attitudes Toward Chronically Ill Patients? Acad Med. 2001; 76:815-20.

Schwind, C. J., R. G. Williams, M. L. Boehler, and G. L. Dunnington. Do Individual Attendings' Post-Rotation Performance Ratings Detect Residents' Clinical Performance Deficiencies. Acad Med. 2004; 79:453-57.

Osborn, E. H. S., M. A. Papadakis, and J. L. Gerberding. Occupational Exposures to Body Fluids Among Medical Students - a Seven-Year Longitudinal Study. Ann Intern Med. 1999; 130:45-51.

Case-Control Studies
Case-Control studies impanel samples of individuals who have and who do not have the outcome of interest and evaluate whether there is evidence of differential exposure at a prior point in time. This is a powerful but uncommon method in educational research.

*Papadakis, MA, et al. Disciplinary action by medical boards and prior behavior in medical schools. N Engl J Med. 2005;353:2673-2682.

Administrative Data
Many projects can be executed using existing data bases regarding patients, trainees, physicians, or curricula. Strictly, this type of work is less about a methodological approach *per se* than about a source of data, since administrative data are often analyzed using statistical techniques and approaches such as cohort or case-control methods or using regression analysis, as discussed elsewhere in these readings. However, it can often be helpful to think of projects that can be done with existing data that has already been collected.

*Christakis N.A., J.A. Jacobs, and C.M. Messikomer. Change in Self-Definition from Specialist to Generalist in a National Sample of Physicians. Ann Intern Med. 1994;121:669-675.

Henrich, J. B. Women's Health Education Initiatives: Why Have They Stalled? Acad Med. 2004; 79:283-8

Intervention Trials (RCT's)
Intervention trials, or randomized controlled trials, involve taking a sample of learners and randomizing some of them to get a "treatment" and others to get a different "treatment" or to get nothing. Such projects tend to be of large scope, and hence more costly and demanding, but they sometimes can be done on a smaller scale, and they need not always involve a randomized arm.

*Kerfoot, B. P., H. Baker, T. L. Jackson, W. C. Hulbert, D. D. Federman, R. D. Oates, and W. C. Dewolf. A Multi-Institutional Randomized Controlled Trial of Adjuvant Web-Based Teaching to Medical Students. Acad Med. 2006; 81:224-30.

*Kerfoot B.P., Armstrong E, O'Sullivan P. Interactive Spaced-Education to Teach the Physical Examination: A Randomized Controlled Trial. J Gen Intern Med. 2008;23(7): 973-8.

Miller WR, Yahne CE, Moyers TB, Martinez J, and Pirritano M. A Randomized Trial of Methods to Help Clinicians Learn Motivational Interviewing. J Consult Clin Psych. 2004;72: 1050-1062.

Houston, T.K., et al. Implementing Achievable Benchmarks in Preventive Health: A Controlled Trial in Residency Education. Acad Med. 2006; 81: 608

Gifford, D. R., R. G. Holloway, M. R. Frankel, C. L. Albright, R. Meyerson, R. C. Griggs, and B. G. Vickrey. Improving Adherence to Dementia Guidelines Through Education and Opinion Leaders -- a Randomized, Controlled Trial. Ann Intern Med. 1999; 131:237.

Participant Observation

This method involves close observation of learning activities or events, and their careful description. Numerous classic studies of medical education (from the 1950's, 1960's and 1970's) involved this method, including Renée Fox's *Experiment Perilous*, Charles Bosk's *Forgive and Remember*, Robert Merton, George Reader, and Patricia Kendall's *The Student Physician*, and Howard Becker et al.'s *Boys in White*.

*Weissman, P.F., WT Branch, CF Gracey, P Haidet, and RM Frankel. Role Modeling Humanistic Behavior: Learning Bedside Manner from the Experts, Acad Med. 2006; 81:661-67.

Interviewing

This method involves talking to informants about their experiences and inductively confirming or developing theory or insights about the object of study. It is more systematic than mere conversation, and it aims to develop reproducible knowledge. It can often be a very demanding method indeed, involving the development and coding of hundreds of pages of transcripts; it is easy to do this poorly, and difficult to do this well.

*Rhodes-Kropf, J., S. S. Carmody, D. Seltzer, E. Redinbaugh, N. Gadmer, S. D. Block, and R. M. Arnold. 'This Is Just Too Awful; I Just Can't Believe I Experienced That...': Medical Students' Reactions to Their 'Most Memorable' Patient Death. Acad Med. 2005;80:634-40.

Klitzman, R. Improving Education on Doctor-Patient Relationships and Communication: Lessons From Doctors Who Become Patients. Acad Med. 2006; 81:447-53.

Engel, K. G., M. Rosenthal, and K. M. Sutcliffe. Residents' Responses to Medical Error: Coping, Learning, and Change. Acad Med. 2006; 81:86-93.

Focus Groups

Originally invented by Robert Merton (a famous social scientist), this method involves bringing together 8-12 informants in a group and having them engage in a guided conversation about the topic at hand. It has been deployed to perfection by strategists of political campaigns and marketing departments, and is very useful in medical education research as well.

*Fryer-Edwards K, Wilkins D, Baernstein A, Braddock C. Bringing Ethics Education to the Clinical Years: Ward Ethics Sessions at the University of Washington. Acad Med. 2006;81:626-631.

Lin, G. A., D. C. Beck, and J. M. Garbutt. Residents' Perceptions of the Effects of Work Hour Limitations at a Large Teaching Hospital. Acad Med. 2006; 81:63-67.

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Greenhalgh, T. K. Seyan, and P. Boynton. Not a University Type: Focus Group Study of Social Class, Ethnic, and Sex Differences in School Pupils' Perceptions about Medical School. BMJ. 2006; 332:981.

Content Analysis
One can qualitatively analyze not just what people say, but what they write as well. Content analysis aims to develop a synthetic understanding about the meaning or motivation behind the production of texts.

*Rabow, M. W., G.E. Hardie, J.M. Fair, and S.J. McPhee. End-of-life Care Content in 50 Textbooks From Multiple Specialties. JAMA. 2000; 283: 771-778.

Christakis N.A. The Similarity and Frequency of Proposals to Reform U.S. Medical Education: Constant Concerns. JAMA. 1995; 274: 706-711.

Fagerlin, A., D. Rovner, S. Stableford, C. Jentoft, J. T. Wei, and M. Holmes-Rovner.. Patient Education Materials About the Treatment of Early-Stage Prostate Cancer: a Critical Review. Ann Intern Med. 2004; 140:721-28.

Overview Readings
These readings provide an elaboration on certain aspects of the field of medical education research more generally.

*Carney, P. A., D. W. Nierenberg, C. F. Pipas, W. B. Brooks, T. A. Stukel, and A. M. Keller. Educational Epidemiology -- Applying Population-Based Design and Analytic Approaches to Study Medical Education. JAMA. 2004; 292:1044-50.

*Green, M. L. Identifying, Appraising, and Implementing Medical Education Curricula: A Guide for Medical Educators. Ann Intern Med. 2001; 135:889-96.

*Norman, G. Research in Medical Education: Three Decades of Progress. BMJ. 2002; 324:1560-1562.

Sessions: Fellowship Toolbox

Using the HMS Digital Library to Conduct a Search of the Medical Education Literature

Reference and Education Services Librarians from the Harvard Medical School Countway Library facilitates this session.

The IRB Application – Essentials that a clinician educator needs to know

Hospital IRB representatives facilitate this session.

MEDICAL EDUCATION DAY AT HARVARD MEDICAL SCHOOL
Sponsored by the Academy and the Program in Medical Education

This annual fall event features posters and technology demonstrations by HMS faculty of their completed work, and work-in-progress related to medical education. Workshops and plenary sessions that describe exemplary educational innovation are also presented. Fellows are encouraged to present their work in this forum.

Sessions: Building Bridges Session

These sessions are scheduled three times yearly.

Session Goals: To gather our community of past and current medical education fellows to (1) form a consulting team to discuss and problem-solve medical education projects, research and teaching dilemmas faced by our colleagues; (2) to discuss and reflect upon current issues of interest to the academic medical education community.

Session: Evaluation of the learner

Medical education curricula and interventions are best designed with the desired outcomes in mind. This is one of several sessions on evaluation. The topic is introduced early in the curriculum and revisited in later sessions.

Session Goals: To: (1) provide an initial overview of important issues in the assessment of the learner; (2) reflect on the definitions and evaluation of trainee competency.

Readings:

- **Epstein RM. Assessment in Medical Education. N Engl J Med. 2007; 356:387-396.**
- **Epstein RM, Hundert EM. Defining and assessing professional competence. JAMA. 2002;287:226-235.**
- **Pangaro LN. A Primer of Evaluation: Definition and Important Distinctions in Evaluation. Adapted from "Evaluation," *Guidebook for Clerkship Directors*, 3rd edition, Alliance for Clinical Education; 2005.**
- **Wass V, et al. Assessment of clinical competence. The Lancet. 2001;357:945-49.**
- **Crossley J et al. Assessing health professionals. Med Educ. 2002;36:800-804.**
- **Rethans JJ et al. The relationship between competence and performance: implications for assessing practice performance. Med Educ. 2002;36:901-909.**

Reference:

- **Miller GE. The assessment of clinical skills/competence/performance. Acad Med. 1990;65:563-567.**
- **Leach DC. Competence is a habit (editorial). JAMA. 2002;287:243-244.**

Session: Providing Feedback and Using Role Plays Effectively as a Teaching Technique

Session Goals: To (1) Discuss effective strategies for providing feedback to learners; (2) Discuss how to use role play effectively as a teaching technique.

In-class Activity:

For this session we ask that you come with a personal, challenging experience giving feedback to a learner. We will share our experiences through various methods including discussion and role play.

Readings:

- **Ende J. Feedback in clinical medical education. JAMA. 1983;250:777-81**
- **Hewson M. Giving feedback in medical education: Verification of recommended techniques. J Gen Intern Med. 1998: 13: 111-116.**
- **Cohen-Cole, SA, Bird J, Mance R. Teaching with role play: A structured approach, Chapter 34. In Lipkin M, ed. *The Medical Interview.* New York: Springer-Verlag;1995.**
- **Rider E, Esterbrook LH. Giving constructive feedback. JAMA. 1995;274:897.**
- **Rider E, Esterbrook LH. Guidelines for clinical teachers receiving feedback from learners. JAMA. 1995;274:996.**
- **Rider E, Esterbrook LH. Feedback in clinical medical education: Guidelines for learners on receiving feedback. JAMA. 1995;274:938.**

Assignment for November 19: Again using Kern's Six Step Approach, please consider how Step #2, "Needs assessment of targeted learners," applies to your fellowship project. Please come prepared to discuss. Under the Project Management tab in your syllabus, we have included *Project Management Worksheet #2* to guide your thoughts. Please note that subsequent reporting of your project will follow this six-step approach.

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Session: Providing Feedback to the Problematic Learner

Session goals: To (1) Discuss the challenges of providing difficult feedback; (2) to reflect on what makes this personally challenging for each of us.

Readings:

- **Levy, DB. *Close encounters of the difficult kind: giving criticism.* Adapted from Fisher R, Ury W. *Getting to Yes: Negotiating Agreement without Giving In.* Penguin Books, 1991.**
- **Wesinger, H. *The Critical Edge: How to Criticize Up and Down Your Organization and Make it Pay Off.* New York: Harper and Row; 1989:23.**
- **Hicks, P, et al. To the point: medical education reviews – dealing with student difficulties in the clinical setting. Am J Obstet Gynecol. 2005; 193:1915-1922.**
- **Steinert, Y and Levitt, C. Working with the "problem" resident: guidelines for definition and intervention. Fam Med. 1993;25:627-632.**
- **Lucey, C. A systematic approach to dealing with residents with problems. In: *APDIM Program Manual. Assoc of Program Directors in Internal Medicine.***

Reference:

- **Burack, J, et al. Teaching compassion and respect. Attending physicians' responses to problematic behaviors. J Gen Intern Med. 1999;14:49-55.**
- **Irby, DM, et al. Legal guidelines for evaluating and dismissing medical students. N Engl J Med. 1981;304;180-184.**
- **Irby, DM and Milam, S. The legal context for evaluating and dismissing medical students and residents. Acad Med. 1989;639-643.**

Session: Lecturing (Part 1) and Project Report: Step Two (Needs Assessment)

Session Goals: (1) Discuss Step 2 of the fellowship project; (2) Review effective lecturing strategies.

Due: Project Management Worksheet #2 (see project management tab in syllabus)

Readings:

- **(Chapters 8 & 9) The Health Care Communication Group. *Writing, Speaking and Communication Skills for Health Professionals.* New Haven, CT:Yale University Press; 2001: 157-211.**
- **Cantillon P. ABC of learning and teaching in medicine: Teaching large groups. BMJ. 2003;326:437-440.**

Assignment for November 26 and December 3: Assigned fellows will prepare and present a 7-10 minute lecture on a subject of their choice.

Reference:

- ***Tips for teachers: Twenty ways to make lectures more participatory.*** **Adapted from Sarkisian E, *Participatory lectures.* Derek Bok Center for Teaching and Learning website,. Available at: http://bokcenter.harvard.edu. Accessed July 27, 2008.**

Session: Lecturing (Part 2)

Goals: To practice constructing and presenting a mini-lecture and to receive peer feedback on presentation style.

Note: We do not expect fellows to present a comprehensive lecture, but rather, a lecture "biopsy."

In-class Activity:

This is the first of two sessions in which three fellows will present a brief (7-10 minute) lecture on any subject of his/her choice. This should include any appropriate audiovisual material. The lecture will be videotaped, and the group will provide peer feedback.

Readings:

- ***How to deliver a disastrous presentation*. Harvard Management Communication Letter.**

Reference:

- **Brown G, Manogue M. AMEE Medical Education Guide No 22: Refreshing lecturing: A guide for lecturers. Med Teach. 2001;23(3):231-244**

Useful websites with online lecturing examples:

Harvard University's Derek Bok Center for Teaching and Learning: http://isites.harvard.edu/icb/icb.do?keyword=k1985&pageid=icb.page29696.

http://www.ted.com/index.php/ This website provides open access to on-line talks by the world's greatest thinkers.

Both URL's accessed July 23, 2008

Session: Lecturing (Part 3)

Session Goals: A continuation of the fellows' brief (7-10 minute) presentation on a subject of their choice.

In-class Activity:

Remaining three fellows present their lectures and receive feedback.

Assignment for December 10:
Please hand in a short story, reflective narrative, poem, or essay about doctoring or the illness experience which you find particularly insightful and moving. This collection of pieces will be used to consider the incorporation of literature and humanities in our teaching. The syllabus includes examples of these types of readings:

- **Selzer R. Imelda. In: Selzer R, ed. *The Doctor Stories*. New York: Picador USA; 1998: 83-97.**
- **Coulehan J. "Turning the page" and "Orientation." In: Coulehan J. *Heavenly Ladder*. Charnwood, Australia: Ginninderra Press;2001.**
- **Gawande A. The case of the red leg. In: *Complications: A Surgeon's Notes on an Imperfect Science*. New York, NY: Metropolitan Books;2002:228-252.**

Session: Lunch and Reflection

We ask that you come to this session prepared to provide feedback on the fellowship experience to date and to offer suggestions about topics and themes you would like to address during the upcoming sessions.

HOLIDAY SEASON

Session: Using Literature to Teach About Medicine

Session Goals: (1) To discuss what literature has to teach us about doctoring (2) To review ways to incorporate literature in your teaching.

In-class Activity

Come prepared to facilitate a 10-minute group discussion incorporating your selected piece of literature.

Readings:

- **Distributed pieces about doctoring or the illness experience**

Reference:

- **Hawkins AH, McEntyre MC,eds. *Teaching Literature and Medicine.* New York, NY: The Modern Language Association;2000:1-25.**
- **Useful website: New York University School of Medicine, medical humanities web site, http://medhum.med.nyu.edu/ (Accessed July 23, 2008.)**
- **Charon R. Attention, representation and affiliation (Chapter 7). In: *Narrative Medicine: Honoring The Stories of Illness.* Oxford University Press; 2006.**

Project assignment:
Complete Project Management Worksheet #3: Goals and Objectives.

Session: Teaching in the Ambulatory Setting

Session Goal: To discuss effective clinical teaching in the ambulatory setting.

Readings:

- **Skeff KM. Enhancing teaching effectiveness and vitality in the ambulatory setting. J Gen Intern Med, 1998;3 (suppl 2):S26-33.**
- **McGee S, Irby D. Teaching in the outpatient clinic, practical tips. J Gen Intern Med. 1997;12 (suppl 2);12:S34-40.**
- **Dent JA. AMEE Guide no. 26: Clinical teaching in ambulatory care settings: making the most of learning opportunities with outpatients. Med Teach. 2005; 27:302-315.**
- **Branch W and Paranjape A. Feedback and reflection: Teaching methods for clinical settings. Acad Med. 2002;77:1185-1188.**

Reference:

- **Irby D, et al. Teaching points identified by preceptors observing one-minute preceptor and traditional preceptor encounters. Acad Med. 2004; 79:50-55.**

Session: Teaching at the Bedside

Session Goal: To observe and reflect upon bedside teaching rounds.

In-class assignment: We will be going to a patient's bedside to conduct teaching rounds.

Readings:

- **Neher JO et al. Special communication: a five-step "microskills" model of clinical teaching. J Am Board Fam Pract. 1992;5:419-424.**
- **Spencer J. ABC of learning and teaching in medicine: learning and teaching in the clinical environment. BMJ. 2003;326:591-594.**
- **Ende J. What if Osler were one of us? J Gen Intern Med. 1997;12 (suppl 2):S41-48.**
- **LaCombe M. On bedside teaching. Ann Intern Med. 1997;126:217-220.**
- **Ramani S. Twelve tips to improve bedside teaching. Med Teach. 2003;25:112-115.**
- **Pinsky L, Irby D. "If at first you don't succeed": Using failure to improve teaching. Acad Med. 1997;72:973-976**.

Reference:

- **Kroenke K. Attending rounds: guidelines for teaching on the wards. J Gen Intern Med. 1992;7:68-75.**
- **Janicik RW, Fletcher KE. Teaching at the bedside: A new model. Med Teach. 2003;25(2):127-130.**
- **Jolly B, et al. Teaching with patients In: *Teaching and Learning in Medical Practice*. U.K.: Manticore Europe Ltd; 1998:Chapter 11: 155-170.**

Session: Small Group Facilitation and Interactive Discussion Techniques

Session Goals: To review interactive techniques used during group discussions and to discuss facilitation strategies.

Readings

- **Christensen CR, Garvin DA, Sweet A,eds. *Education for Judgment: The Artistry of Discussion Leadership.* Cambridge, MA: Harvard Business School Press;1991:Chapters 2, 6, and 9.**
- **Jacques D. ABC of learning and teaching in medicine: teaching small groups. BMJ. 2003;326:492-494.**
- **Lake FR, Vickery AW, Ryan G. Teaching on the run tips 7: effective use of questions. MJA. 2005;182(3):126-127.**

References:

- **Muller J, Irby DM. Practical teaching: how to lead effective group discussions. Clin Teach. 2005; 2:10-15.**
- **Fryer-Edwards K et al. Reflective teaching practices: an approach to teaching communication skills in a small group setting. Acad Med. 2006;81:638-644.**
- **Westberg J and Jason H. Leadership tasks, challenges, and strategies during group sessions. In: *Fostering Learning in Small Groups.* New York, NY: Springer Publishing Company; 1996:72-109.**

Project assignment: **Complete Project Management Worksheet #4: Educational Strategies.**

Session: Case-based Teaching, Part I

Session Goal: To (1) Explore factors that determine the successful development and use of cases in clinical teaching; (2) Examine case-based teaching as a method to encourage active participation, problem solving and critical thinking.

Assignment:

Each fellow should write a 1-2 paragraph clinical case from his or her discipline. Please come prepared to teach the case during the session. You can specify what level learner you would like your audience to be. Be sure to consider the take home points you hope to bring out during the discussion and the questions you plan to use.

Due: Case presentations by 3 Fellows.

Readings:

- **Christensen C, Garvin D, Sweet A,eds. *Education for Judgment*. Cambridge, MA: Harvard Business Press; 1991: Chapter 11.**
- **Kim S et al. A conceptual framework for developing teaching cases: a review and synthesis of the literature across disciplines. Med Educ. 2006;40:867-876.**
- **Rosmarin A. The art of leading a discussion. Suppl. Materials for seminar.**

References:

- **Westberg J, Jason H. Facilitating problem-based learning groups. In: *Fostering Learning in Small Groups.* New York, NY: Springer Publishing Company; 1996: 156-182.**
- **Davis B, ed. Asking questions. In: *Tools for Teaching*. San Francisco: Jossey Bass; 2001: 82-90.**
- **An excellent resource for learning more about case-based teaching may be found at: http://cte.umdnj.edu/active_learning/active_case.cfm. Accessed July 27, 2008.**
- **Barnes LB, Christensen CR, Hansen AJ. *Teaching and the Case Method.* 3rd edition. Cambridge, MA: Harvard Business School Press; 1994.**

Session: Case-based Teaching, Part II

Session goals: To continue to examine teaching methods specific to various disciplines.

Case presentations by 3 Fellows: Please come prepared to teach your case to the group. Be sure to highlight teaching strategies used in your discipline.

Readings:

- **Gordon J. ABC of learning and teaching in medicine: one to one teaching and feedback. BMJ. 2003;326:543-545.**

Examples of specific references, supplemented yearly depending on Fellows' disciplines:

- **Jones RW, Morris RW. Facilitating learning in the operating theatre and intensive care units. Anesth Intensive Care. 2006;34:758-764.**
- **Lyon P. Making the most of learning in the operating theatre: student strategies and curricular initiatives. Med Educ. 2003;37;680-688.**
- **Park YA, Marques MB. Teaching medical students basic principles of laboratory medicine. Clin Lab Med. 2007;27:411-24.**
- **Burge SM. Teaching dermatology. Clin Exp Derm. 2003;29:206-210.**
- **Claassen J, Kruger E. Beyond the chalkboard: the interacting domains in undergraduate psychiatric teaching. Austral Psych. 2005;13:154-158**

Session: Use of Simulation for Teaching and Assessment

Session Goals: (1) Recognize the potential of medical simulation technology for clinical skill acquisition and maintenance; (2) Appreciate the importance to learners of deliberate practice, rigorous measurement, and feedback in simulation; (3) Recognize that simulation effectiveness requires curriculum integration and faculty preparation.

Readings:

- **Issenberg SB, Scalese RJ. Best evidence on high-fidelity simulation: what clinical teachers need to know. Clin Teach. 2007;4:73-77.**
- **Kneebone R. Evaluating clinical simulations for learning procedural skills: a theory-based approach. Acad Med. 2005;80:549-553.**
- **Schuwirth LWT, van der Vleuten CPM. The use of clinical simulations in assessment. Med Educ. 2004; 37(suppl 1):65-71.**
- **Rudolph JW, et al. There's no such thing as "nonjudgmental" debriefing: a theory and method for debriefing with good judgment. Simul Healthcare. 2006;1:49-55.**

Reference:

- **Grantcharov TP, et al. Randomized clinical trial of virtual reality simulation for laparoscopic skills training. Brit J Surg. 2004; 91:146-50.**
- **Seymour NE, et al. Virtual reality training improves operating room performance. Ann Surg. 2002;236:458-464.**

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Session: Teaching Procedural Skills

Session Goals: To explore the principles of teaching procedural and technical skills.

Assignment: Come prepared to demonstrate how you would teach a trainee a procedure commonly performed in your discipline. Please bring actual props, equipment, etc.

In preparation for this session, please look at the *New England Journal of Medicine* online procedure videos. Go to www.N Engl J Med.org and in search box, type in procedure videos

Readings:

- **Gawanda A. Education of a knife. In: *Complications: A Surgeon's Notes on an Imperfect Science.* New York, NY: Henry Holt and Company;2002:11-34.**
- **McLeod PJ et al. Seven principles for teaching procedural and technical skills. Acad Med. 2001;76 (10):1080.**
- **George JH, Doto FX. A simple five-step method for teaching clinical skills. Fam Med. 2001;33:577-578.**
- **Kovacs G. Procedural skills in medicine: linking theory to practice. J Emerg Med. 1997;15:387-391.**

Reference:

- **Reznick RK. Teaching and testing technical skills. Am J Surg. 1993;165:358-361.**

Session: Use of Educational Technology in Medical Education

Session Goal: To develop a framework of evaluating the use of medical education technology

Readings:

- ***Effective use of educational technology in medical education: Recommendations and guidelines for medical educators.* AAMC Institute for Improving Medical Education, March 2007.**
- **Hilty DM, et al. APA summit on medical student education task force on informatics and technology: steps to enhance the use of technology in education through faculty development, funding and change management. Acad Psych. 2006;30:444-450.**

Reference:

- **Grunwald T, Corsbie-Massay C. Guidelines for cognitively efficient multimedia learning tools: educational strategies, cognitive load, and interface design. Acad Med. 2006;81:213-223.**

Session: Involving Patients in Medical Education

Session Goal: To (1) Explore collaborative strategies for integrating patients and family members into medical education; (2) Explore the impact of doing so on all participants and institutions.

Readings:

- **Towle A, Weston W. Patient's voice in health professional education. Patient Educ Couns. 2006;63:1-2.**
- **Wykurz G, Kelly D. Developing the role of patients as teachers: Literature review. BMJ. 2002;325:818-821.**
- **Raj N, Badcock LJ, Brown GA, Deighton CM, O'Reilly SC. Undergraduate musculoskeletal examination teaching by trained patient educators--a comparison with doctor-led teaching. Rheum. 2006;45:1404-1408.**
- **Spencer J, Blackmore D, Heard S, McCrorie P, McHaffie D, Scherpbier A, Gupta TS, Singh K, Southgate L. Patient-oriented learning: a review of the role of the patient in the education of medical students. Med Educ. 2000;34:851-857.**
- **Johnson AM, Yoder J, Richardson-Nassif K. Using families as faculty in teaching medical students family-centered care: what are students learning? Teach Learn Med. 2006 Summer; 18:222-225.**

Session: Reflections on Doctoring and Teaching

Session Goal: **To discuss using personal narrative and reflection in our teaching.**

Assignment:
The session will begin with an exercise entitled, *My Most Meaningful Patient.* Each fellow should come prepared with a one-page written description of his/her most meaningful patient including a brief description of the patient and his/her hospital course, why this patient experience was meaningful, and what was learned from the experience that might be taught to others. We will share our experiences with each other.

Readings:

- **Lichstein PR, Young G. My most meaningful patient: Reflective learning on a general medicine service. J Gen Intern Med. 1996;11:406-409.**
- **Brady DW, Corbie-Smith G, Branch WT. "What's important to you?": The use of narratives to promote self-reflection and to understand the experiences of medical residents. Ann Intern Med. 2002;137:220-223.**
- **Branch WT. Use of critical incident reports in medical education. J Gen Intern Med. 2005;20:1063-1067.**

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Examples of Personal Narratives:

- **Hatem CJ. Listening with our eyes. Harvard Medical Alumni Bulletin. 2005;summer:26-31.**
- **Horowitz CR, Suchman AL, Branch WT, Frankel RM. What do doctors find meaningful about their work? Ann Intern Med. 2003;138:772-776.**
- **Selections from: LaCombe M,ed. *On Being a Doctor - 1*. Philadelphia, PA: American College of Physicians; 1995.**
    - **Southwick FS. Who was caring for Mary? pgs. 35-40.**
    - **Swan HJC. Kath, pgs. 41-43.**
    - **LaCombe M. Playing God, pgs. 83-87.**
- **Cassel, C. Reflections on "Playing God." Ann Intern Med. 1992;116:163-164.**
- **Weinberg RB. The laying on of hands. Ann Intern Med. 1992;117:83-84.**
- **Bradshaw D. A visit to the doctor. Ann Intern Med. 1999;131:627-628.**
- **Cassell EJ. Nature of suffering and goals of medicine. N Engl J Med. 1982;306:639-645.**
- **Cassell EJ. Diagnosing suffering. Ann Intern Med. 1999;131:531-534.**

Project assignment: Using the Kern's Six Step Approach, we ask you to consider how the fifth step, "Implementation" applies to your fellowship project. Please complete the Project Management Worksheet #5.

Session: Evaluation of medical education programs and curricula and Step 6 of Fellowship Project

Goals: To (1) Discuss the principles of effective evaluation of medical education programs and curricula; (2) Discuss step six of the Rabkin Fellowship Project.

Assignment: Re-read Chapter 7 in Kern et al. *Curriculum Development for Medical Education: A Six-Step Approach*. Prepare in writing Step 6 (Evaluation and Feedback) of your Rabkin Project by addressing the following:

- **Who are your program's stake holders?**
- **How will the evaluation be used?**
- **Identify one to three critical evaluation questions. Are they congruent with the objectives of your project?**
- **Describe an appropriate evaluation design for your project.**
- **What type of measurement methods will you use?**
- **How will the data collected be analyzed?**
- **In what format will you present the data analysis?**

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Readings:

- **Wilkes M, Bligh J. Evaluating educational interventions. BMJ. 1999;318:1269-1272.**
- **Goldie J. AMEE education guide no. 29: evaluating educational programmes. Med Teach. 2006;28:210-224.**
- **Morrison J. ABC of learning and teaching in medicine: evaluation. BMJ. 2003;326:385-387.**
- **Freeth D, et al. A critical review of evaluations of interprofessional education. In: *The Interprofessional Education Joint Evaluation.* London, England: Learning and Teaching Support Network Health Sciences and Practice; 2002:13-14.**
- **Armstong EG, Barison SJ. Using an outcomes-logic model approach to evaluate a faculty development program for medical educators. Acad Med. 2006;81:483-88.**

Reference:
Durning S, Hemmer P, Pangaro L. The structure of program evaluation: an approach for evaluating a course, clerkship, or components of a residency or fellowship training program. Teach Learn Med. 2007;19:308-318,

Session: The Peer Review Process – An Overview and Project Management Report #4: Educational Strategies

Session Goals: To (1) Discuss the peer review of teaching process; (2) Discuss Project Management Report #4: Educational Strategies.

Assignment: In pairs, arrange a time to observe and provide feedback on each other's teaching.

Readings:

- **Newman L. Peer Review of Teaching: Resource Faculty Handbook. Shapiro Institute for Education and Research at HMS and BIDMC, 2007.**
- **Guidelines on the Peer Observation of Teaching. Available at: http://www.rdg.ac.uk/Handbooks/Teaching_and_Learning/Peer_Review_Guidelines.html. Accessed July 27, 2008.**
- **Beckman TJ. Lessons learned from a peer review of bedside teaching. Acad Med. 2004;79:343-346.**
- **Jason H, Westberg J. *Receiving feedback from a peer* and *Giving feedback to peers*. Center for Instructional Support, University of Colorado Health Sciences Center. http://www.uchsc.edu/CIS/ Accessed July 27, 2008.**

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The Rabkin, Mount Auburn, and Harvard Medical School Academy Fellowships in Medical Education Curriculum

Session: Evaluation of the Medical Educator

Goals: To (1) Report on the Peer Observation of Teaching experience; 2)Define teaching competencies; (3) Explore methods to evaluate teaching

In-class activity: Please write down one teaching insight you gained from being observed, and one insight you gained from observing a peer. Please come prepared to reflect on your peer observation experience.

Readings:

- **Snell L. A review of the evaluation of clinical teaching: new perspectives and challenges. Med Educ. 2000;34:862-870.**
- **Hesketh EA, et al. A framework for developing excellence as a clinical educator. Med Educ. 2001;35:555-564.**
- **Paulsen MB. Evaluating teaching performance. In: *New Directions for Institutional Research.* Wiley Periodicals; Summer 2002; No.114.**
- **Purcell N and Lloyd-Jones G. Standards for medical educators. Med Educ. 2003:37:149-154.**
- **Copeland HL and Hewson MG. Developing and testing an instrument to measure the effectiveness of clinical teaching in an academic medical center. Acad Med. 2000;75:161-166.**

Reference:

- **Buchel AL, Edwards FD. Characteristics of effective clinical teachers. Fam Med. 2005;37:30-35.**

The Rabkin, Mount Auburn, and Harvard Medical School Academy Fellowships in Medical Education Curriculum

Session: Financing of Medical Education:

Session goal: To foster understanding of the complexities of medical education financing policies, with special attention to how residency programs are financed.

In-Class Assignment:

You are a residency program director for the Be Well Medical Center. In reviewing the teaching activities of your faculty, you realize the need to secure more funding to underwrite their time and effort. You've written to Dr. S, VP of Education, and have requested a meeting to go over the funding situation. As it turns out other program directors in pathology, anesthesia and critical care, medicine, emergency medicine, and a medical school course director have also requested a similar meeting! For efficiency sake, Dr. S has decided to hold a group meeting to hear everyone's concerns and requests on Monday, from 2:30-3:30 p.m. This is your chance to justify your request to Dr. S with well thought through, reasoned arguments of why the Medical Center should provide YOUR program with more funding. You want to remain civil, but remember by the end of the meeting you want to walk away feeling you have secured financing for YOUR program. Good luck!

Readings:

- ***Medical student education: cost, debt, and resident stipend facts. Annual Meeting Fact Card.* Association of American Medical Colleges; Washington, DC; October 2007.**
- **Watson RT. Rediscovering the medical school. Acad Med. 2003;78:659-665.**
- **Morrison G. Mortgaging our future: The cost of medical education. N Engl J Med. 2005:352:117-119.**
- **The Direct Graduate Medical Education (DGME) payment. In: *Medicare Payments with an Educational Label: Fundamentals and the Future*; pgs. 20-23.**

Reference:

- **Newhouse JP, Wilensky GR. Paying for graduate medical education: the debate goes on. Health Affairs. 2001;20:136-147.**
- **Dickinson TA. The future of financing medical education: questions about Medicare's role. Am J Med. 2004;117:287-290.**
- **Zeidel M et al. Estimating the cost to departments of medicine of training residents and fellows: a collaborative analysis. Am J Med. 2005;118:557-64.**

Session: Negotiation Skills and Project Management Worksheet #5

Goals: 1) To review Project Management Worksheet #5;
2) To discuss and practice strategies that may be used during a negotiation.

Project Assignment: Please come prepared to report on Project Management Worksheet #5.

Readings:

- **Fisher R, Ury W. *Getting to Yes: Negotiating Agreement Without Giving In.* New York, NY: Penguin Books; 1991.**
- **Anastakis D. Negotiation skills for physicians. Am J Surg. 2003;185:74-78.**

Reference:

- **Bandy KG. How to negotiate: A guide for women in medicine. AMWA 2004. www.amwa-doc.org.**
- **Ertel D. *Getting past yes: negotiating as if implementation mattered.* Cambridge, MA: Harvard Business Review On Point; November 2004.**

Session: Becoming a Change Agent in Medical Education

Goals: To (1) Understand the complex variables and barriers involved in organizational change; 2) Articulate and practice the skills needed to implement change in medical education systems.

In Class-Activity: During the session, we will engage in a role play exercise. You are to assume the roles of orthopedic surgical faculty members at the *Be Well School of Medicine*. As dedicated clinician-educators, you feel your school does not provide adequate musculoskeletal education to the medical students and believe it is time to make a change. The chair of Be Well's curriculum committee has agreed to meet with you to hear your proposal to implement a new, 4-year integrated curriculum for the medical students. Our guest facilitator, Dr. Charles Day, will assume the role of the chair although he is no longer Dr. Day, but is known at Be Well as Dr. Night. A radiologist by training, Dr. Night is considered by most "an old stick in the mud!" Prepare yourselves by reading the assigned articles, chapters, and monograph on becoming a change agent.

Reading:

- **Collins Jim. *Good to Great and the Social Sectors: A Monograph to Accompany Good to Great.* 2005.**
- **Day CS, et al. Musculoskeletal medicine: an assessment of the attitudes and knowledge of medical students at Harvard Medical School. Acad Med. 2007;82:452-457.**
- **Berwick DM. Disseminating innovations in health care. JAMA. 2003;289:1969-1975.**

- **Bland CJ et al. Curricular change in medical schools: how to succeed. Acad Med. 2000 Jun;75(6):575-94.**
- **Bowe MC, Armstrong E, Kegan R. Questioning the big assumptions: Part I: addressing personal contradictions that impede professional development. Med Educ. 2003;37:715-722.**

Reference:

- **Gerrity MS and Mahaffy H. Evaluating change in medical school curricula: how did we know where we were going? Acad Med. 1998;73:S55-S59.**
- **Hammond SA. *The thin book of appreciative inquiry.* 2nd ed. Plano, TX: Thin Book Publishing Co; 1998.**
- **Watkins JM, Mohr BJ. *Appreciative Inquiry. Change at the Speed of Imagination.* San Francisco, CA: Jossey Bass/Pfeiffer;2001.**
- **Bridges W. *Managing Transitions*: *Making the Most of Change.* Cambridge, MA: Addison-Wesley Publishing; 1991.**

Session: Developing a Career as a Medical Educator

Goals: To discuss publishing, presenting, and funding strategies

Reading:

- **Morahan PS and Fleetwood J. The double helix of activity and scholarship: building a medical education career with limited resources. Med Educ. 2008;42:34-44.**
- **Simpson D, et al. Advancing educators and education by defining the components and evidence associated with educational scholarship. Med Educ. 2007;41:1002-1009.**
- **Reed DA, et al. Association between funding and quality of published medical education research. JAMA. 2007;298:1002-1009.**
- **Shelledy DC. How to make an effective poster. Respir Care. 2004;49:1213-1216.**
- **Campbell RS. How to present, summarize, and defend your poster at a meeting. Respir Care. 2004;49:1217-1221.**

Reference:

- **The Foundation Center. Top 50 U.S. Foundations Awarding Grants for Higher Education, circa 2003. Available at: http://foundationcenter.org/findfunders/statistics/ Accessed July 27, 2008.**
- **Boyer EL. *Scholarship Reconsidered: Priorities of the Professoriate*. Princeton, NJ: Carnegie Foundation for the Advancement of Teaching; 1990.**
- **Glassick CE. Boyer's expanded definitions of scholarship, the standards for assessing scholarship, and the elusiveness of the scholarship of teaching. Acad Med. 2000;75:877-880.**
- **Reed DA, et al. Costs and funding for published medical education research. JAMA. 2005;294:1052-1057.**
- **Fincher R, et al. Scholarship in teaching: An imperative for the 21st Century. Acad Med. 2000;75:887-894.**

Online resources:
- **Selection of articles on what reviewers look for in submissions of medical education publications -- Acad Med. September 2001, volume 76**

Session: The Practice of Self-Reflection

In-class Assignment: In September you wrote and shared a reflective statement about your philosophy and approach to teaching. As the Fellowship draws to a close, we ask that you re-write a 1 – 2 page statement to reflect your thoughts about teaching at the end of this academic year. Please come prepared to share your statement with the group.

Due: Fellowship Project Report Abstract

Readings:
- **Epstein RM. Mindful practice. JAMA. 1999;282:833-839.**
- **Eva KW, Regehr G. Self-assessment in the health professions: a reformulation and research agenda. Acad Med. 2005;80:S46-S54.**
- **Branch W. Use of critical incident reports in medical education: A perspective. J Gen Intern Med. 2005;20:1063-1067.**
- **Novack DH, Epstein R, Paulsen RH. Toward creating physician-healers: fostering medical students' self-awareness, personal growth, and well being. Acad Med. 1999;74:516-520.**

Session: Medical Education Research Poster Session

Goal: To present in poster format your fellowship project. All fellows will have the chance to both present their own work as well as view and discuss their colleagues' posters.

Using a 36"x48" size poster display board, please adhere 8 ½ x 11 size paper to the board. Present your fellowship project, using the abstract guidelines provided.

Session: Project Presentation and Lunch

The symposium of Fellowship Project Presentations is held at the end of the Fellowship year. Each Fellow has 10 minutes for the presentation and 5 minutes for questions. Mentors, department heads, new Fellows, friends and family are invited to attend. Fellows also submit a final synopsis of their fellowship projects.

Graduation!

We would like to acknowledge the colleagues who have participated as facilitators in our Fellowships: Jeanette Clough, Charles Day, Nick DiIeso, Susan Farrell, David Feinstein, David Fobert, Susan Frankl, Grace Huang, Julie Ingelfinger, Julie Irish, Anna Johansson, Don Levy, Paul Levy, Carol Mita, Jane Neill, Antonette Peters, Mitchell Rabkin, David Roberts, Richard Schwartzstein, Christopher Smith, and Anjala Tess.

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