

Chapter 14: Educational Scholarship

Janet Palmer Hafler, EdD, Lead Author

**Maria A. Blanco, MA, Ruth-Marie E. Fincher, MD, Fredrick H. Lovejoy, Jr. MD and
Jeffrey A. Morzinski, MSW, PhD, Co-Authors**

Introduction

The educational activities of clerkship directors are essential to the success of academic medical institutions but, prior to 1990, were often overlooked by promotion committees, journal editors, and others who appeared to value more traditional efforts — research papers, grant awards, or book chapters. The mind-set in medical education has changed in the past 15 years, so that now the educational contributions of clerkship directors and other clinician educators are increasingly being recognized and rewarded. This change is due in large part to the work of Ernest Boyer¹ and the Carnegie Institute. Boyer's landmark publication helped educators organize their work within a new framework he labeled "scholarship."

The aim of this chapter is to provide clerkship directors with a practical understanding of the scholarship of education so that they can benefit and advance from their work as scholars. Opportunities and outlets for scholarship have grown enormously in medical education. In some cases, teaching, mentoring, curriculum development, or educational leadership, which are among the daily activities of many clerkship directors, are now recognized as scholarship.

The chapter begins with an overview of educational scholarship. Next you will meet the archetypical Ann Billings, MD, a clerkship director called upon by her chair to assemble her scholarly materials for an upcoming meeting. She is off to a good start in developing her educational activities into more scholarly pursuits, but is unsure of what further progress is needed to move them into scholarship. The subsequent sections provide information on how to move an educational activity into a scholarly activity and into scholarship. The specific delineation between scholarly work and scholarship is discussed, and how work can be evaluated is presented. Finally, support systems at the institutional and department levels are discussed. Dr. Billings does not have a mentor and has not inquired about the type and nature of support either her department or the medical school has to offer. Frankly, she looks forward to the meeting, but not without some trepidation.

The Beginnings

In 1990, Boyer¹ proposed that academic recognition should extend beyond the teaching-versus-research debate. He argued that the term scholarship brought legitimacy to the full scope of academic work. He framed scholarship in four domains:

- The scholarship of discovery is consistent with traditional types of research;
- The scholarship of integration makes connections across disciplines and places specialties in a larger context;
- The scholarship of application demonstrates the vital interaction between research and practice, wherein the one continuously informs the other; and

- The scholarship of teaching emphasizes the creation of new knowledge about teaching and learning in the presence of learners.

There are several points of connection between Boyer's expanded view of scholarship and the activities of medical clerkship directors. Medical schools have been using these different ideas about scholarship, and academic medical institutions increasingly have referred to Boyer's domains and developed ways to reward teaching faculty for their educational contributions.² As early as 1992, several medical schools were encouraging their faculty members to provide evidence of their educational work in portfolio-like documents that could be sources of teacher recognition.³ As of 2003, at least half of all medical schools showed evidence that they valued the educational activities of their faculty, with many schools providing detailed advice about how faculty members could assemble their best educational materials for promotion packets.² Despite more attention to education in promotion and tenure processes, confusion persisted around the inference that teaching in and of itself was scholarship.

The relationship between teaching and scholarship is more clearly elucidated by defining teaching, scholarly teaching, and scholarship of teaching. Ramsden⁴, p.5 noted, "The aim of teaching is simple: It is to make student learning possible." It is a given that teaching should promote student learning and Richlin⁵ expanded upon the elements that go into it:

The term teaching refers to the design and implementation of activities to promote student learning. It certainly goes beyond what teachers do in the classroom. Teaching includes course design and the development of instructional materials, the out-of-class interactions between faculty members and students, as well as the formative and summative assessment of student learning (p. 69).⁴

But is teaching scholarship? Richlin⁵, p. 59 says no: "The scholarly process begins with an observation, which identifies a problem or situation the teacher would like to improve or an opportunity the teacher would like to seize." A "scholarly" teacher, then, would strive to understand and apply theories of learning to his or her teaching, curriculum development and evaluation methods; to reflect on the teaching; to invite and receive feedback from students; to analyze the process; and to make changes as appropriate:

Being scholarly refers both to the knowledge that faculty have and the approaches they take – their preparation, methodology, and reflective critique. [. . .] one might be an excellent teacher without either being a scholarly teacher or making any contribution (either poor or excellent) to the scholarship of teaching (p. 75).⁵

Schön⁶, p.31 said, "If teaching is to be seen as a form of scholarship, then the practice of teaching must be seen as giving rise to new knowledge." Bereiter and Scardamalia⁷ suggested that not everyone becomes an expert with experience. Hutchings and Shulman⁸ also argue that the scholarship of teaching and learning is more than simply teaching well, it must also lead to particular kinds of outcomes, which we will discuss later in this chapter when we look at "evidence" of scholarship.

Context

The graphic below offers a visual context that helps us see the parallels in approaching “problems” addressed in research and in teaching; moving the pursuits within each of those into scholarly activity; and then translating scholarly activity into scholarship. Both avenues (teaching and research) have commonalities:

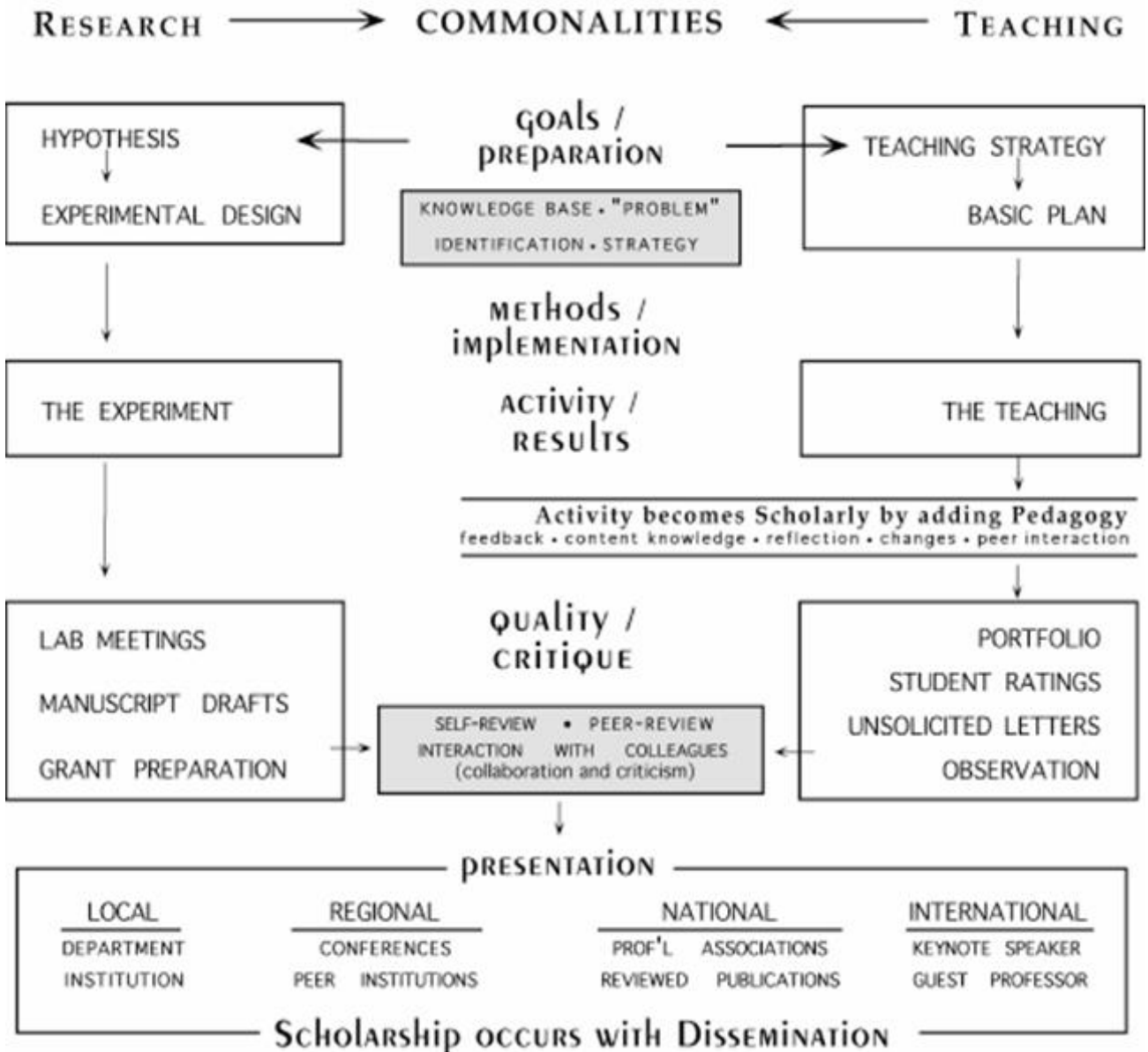
- Goals and Preparation — identifying the problem or research issue, drawing from the knowledge base, developing a strategy to approach the problem
- Methods and Implementation
- Activity and Results

It is at this point that teaching and research can move forward into scholarly activities by delving into the pedagogy appropriate to research and to teaching, respectively. And for each, the commonalities continue:

- Quality and Critique — self-review, peer review, interaction with colleagues for collaboration and criticism; and
- Presentation and Dissemination

WHAT IS SCHOLARSHIP?

A LOOK AT "RESEARCH" AND "TEACHING"



Goals, preparation, and activity

An example of "just teaching" might involve this for goals and preparation: taking a prior year's course materials; preparing to give a required lecture or series of lectures (the need at hand or "problem" to address); and adopting the prior year's lesson plan and notes; and giving the lecture/s. The result is simple teaching.

A scholarly activity

Someone else might seize the opportunity to do something different: look at the prior year's course materials, lesson plan, and notes; identify, from his or her knowledge base, parts of the lecture/s that need updating and where new material might be added; remember from last year and verify with a colleague how the students performed on the examination covering the material and what feedback they gave on the course evaluation; introduce current content and AV resources that might improve student learning of the material; give the lecture; and track how students do on the examination. Certainly this second scenario is more considered, thoughtful, and will likely result in better teaching, but none of the extra thought, preparation, and effort would typically be viewed as scholarly activity; although better teaching, yes.

Take a third scenario that builds on the second, with essentially the same circumstances. In this case, the lecturer considers that the problem material might need more than fresh content and AV resources. He or she might conduct a literature search to see if anyone has written about personal experiences with teaching the same elements in the curriculum; discover that a few researchers did in fact look at the topic; consider refining an educational intervention that had been tried and looked promising, but generated inconclusive results; contact a colleague skilled in qualitative research design for advice on protocol; and submit a preliminary request with the course director for a go-ahead to a two-year trial of his or her proposal. Certainly there is more breadth and depth at all levels to this approach. Still, what would it take to have that be considered scholarly activity?

According to our graphic, the introduction of Pedagogy into the process — of which there are certainly some initial elements — would move the teaching activity toward scholarly teaching.

The scholarship of the activity

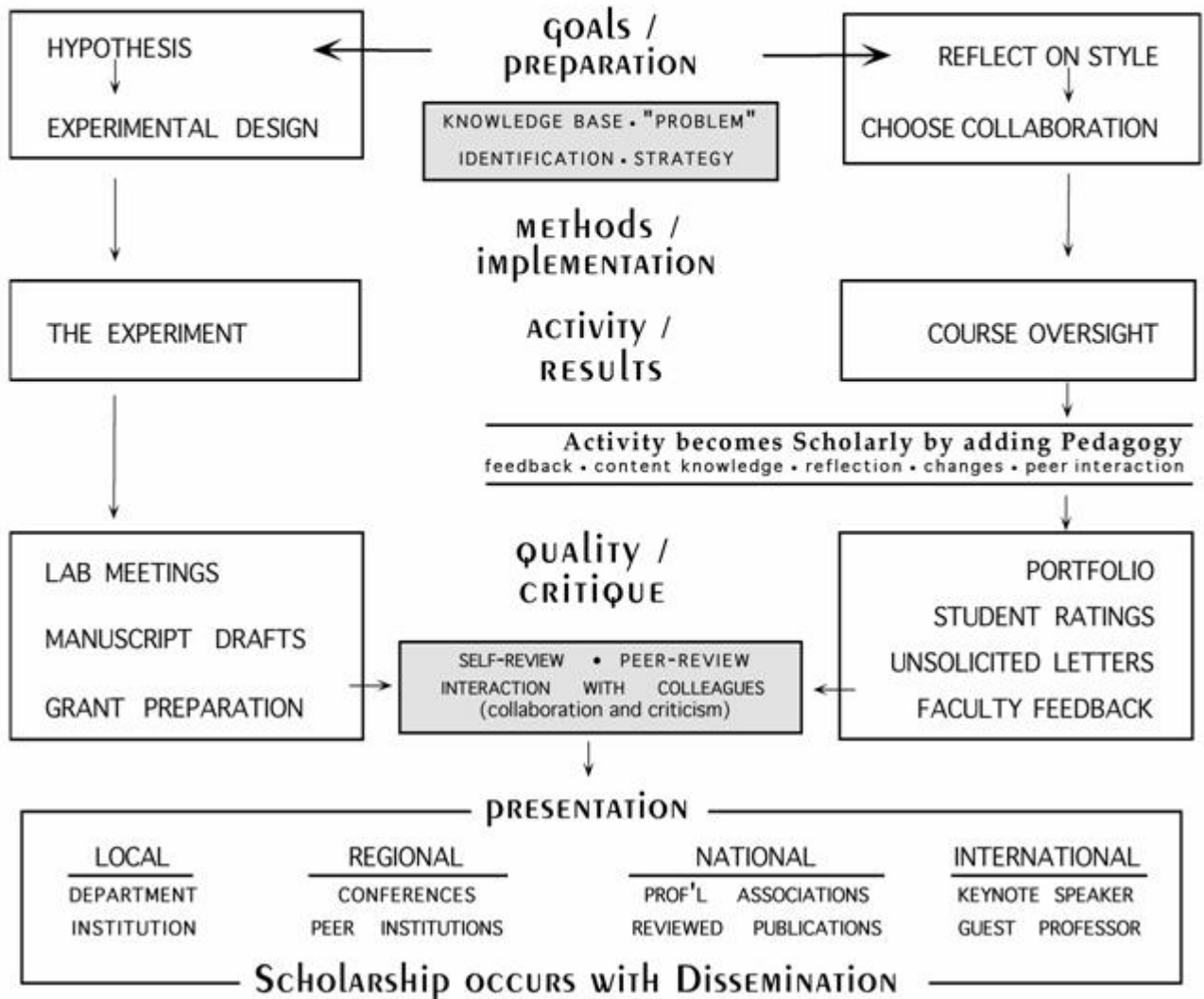
The scholarship of this teaching activity is when the teaching is peer reviewed and made public by being disseminated. For example, the faculty member could provide workshops locally or at a national meeting on how to increase student learning by identifying the new pedagogical strategies, based on learning theory, that he included in his lecture.

Take an altogether different example involving educational administration: a newly appointed clerkship director at a medical school-affiliated hospital has received feedback from the curriculum review committee that the previous administration's clerkship management was too autocratic, did not include perspectives from faculty members teaching in other clerkships, and had not responded to the suggested changes the students had offered.

WHAT IS SCHOLARSHIP?

A look AT "RESEARCH" AND "EDUCATIONAL ADMINISTRATION"

RESEARCH → COMMONALITIES ← EDUC ADMIN



She too might go through a similar iteration of the process covered in our example on teaching, except that instead of lesson plans and curriculum materials, she might reflect on herself; consider her "style" of leadership and collegial interaction; being familiar with the literature but also being self-aware, determine that a "collaborative" approach to the course would yield benefits; set course goals for performance among students and faculty that relate to the style; build in steps and indicators within the course's management that would provide data and guideposts; meet with educators and colleagues who are also course managers, and so on.

Focus on Clerkship Directors

Looking at Boyer's four types of scholarship¹ — discovery, integration, application, and teaching — one can see that a clerkship director may readily be involved in any one or more. The key is the answer to this question: What are the types and characteristics of educational activities that result in such activities earning the designation of "scholarship?" Hutchings and Shulman⁸, p.5 are clear and specific: "For an activity to be designated as scholarship it should manifest at least three key characteristics: It should be public, susceptible to critical review and evaluation, and accessible for exchange and use by other members of one's scholarly community." Those characteristics, they continue, are the core components of all forms of scholarship, and the features by which "scholarship properly communicated and critiqued serves as the building blocks for knowledge growth in a field."

What comprises evidence of scholarship and how it can be evaluated was described when Glassick^{9, 10} identified six characteristics against which educational activities could be assessed. They would consist of the following features:

List 1 Six Characteristics to Assess the Progress of Educational Activities
<ul style="list-style-type: none">• Clear Goals• Adequate Preparation• Appropriate Methods• Significant Results• Effective Presentation• Reflective Critique

For any of the above characteristics to be useful, clerkship directors need to know how to collect and organize their educational activities so that they will be public and accessible for evaluation. Therefore, we will specifically address what should be collected as evidence of educational scholarship and how the evidence might be submitted when using a dossier or portfolio. We look at these questions: How do clerkship directors' educational activities progress towards educational scholarship? What should be collected as evidence of educational scholarship? And how should the evidence be submitted? The concept of portfolios will be interwoven in this section, because portfolios have been shown to be an accepted method for documenting scholarly materials.¹¹

We use the term educator's portfolio to mean a set of materials that document educational contributions, ranging from teaching itself to curriculum, evaluation, mentoring, administration, and leadership, for example, in addition to the content listed in one's CV. To set the stage for this discussion, we introduce a case vignette — that of "Dr. Ann Billings."

Case Vignette — page 1

Dr. Ann Billings is in the fourth year of her academic appointment as an assistant professor and in her second year as the clerkship director in a department of medicine. The clerkship is 4 weeks and is required for all 160 third-year medical students. She is in

her office and as a breather from her many administrative, teaching, and clinical duties, she scans the score of e-mails she has received in the past 24 hours, including the following:

- questions from two students she currently advises
- the urgent need to recruit new community faculty for the clerkship
- compensation agreements she must negotiate with three part-time clerkship faculty
- feedback on her slides as co-presenter for an upcoming medicine lecture to residents on “an evidence-based approach to providing feedback”
- a summary report from the medical school on student ratings of all third-year clerkships
- a notice from the curriculum dean about all clerkships’ compliance with LCME standards regarding types of patients and experiences.

So crowded was her In Box, Ann quickly scrolled to an e-mail from Dr. Shaker, her department chair. In his message, he asked to meet individually with all department faculty members concerning their academic progress, asking everyone to emphasize their scholarly activities over the past year. “I certainly haven’t done much academic writing this past year,” Ann thought to herself. “What can I pull together for this meeting? What do I do that is scholarly?”

The challenge is for Dr. Billings to gather evidence of activities that may be progressing to scholarship. Our scenario continues:

Ann has read about a growing trend that shows medical schools giving weight to non-traditional scholarship in their decisions about faculty promotion.^{2, 11, 12} One issue there, of course, is that while “traditional” scholarship (e.g., peer-reviewed publications and external grants) is quite straightforward to categorize, determining what and how to report non-traditional scholarship materials is nowhere as clear. To her, that seemed to be the root of her dilemma: with not much recent grant or writing activity, which activities might she list and what materials or evidence could she consider including in her portfolio?

Ann consults with Sue McCourt, a friend and a fellow clerkship director in the Ob/Gyn department who recently was asked to do the very same thing. Ann knew Sue had put together a portfolio that Ann had yet to see. Artists and architects traditionally have used portfolios to organize and display their work, Ann knew, and she assumed Sue must have put together something along those lines.

In fact, Sue had diligently researched the subject and found that, from the time they took shape in the early 1990s, portfolios had become a way for medical educators to categorize and display their work.^{2, 11, 12} And, a variety of organizational formats for portfolios had been developed that educators could adopt. Researchers had shown that, in medical education applications, portfolios have been successful at organizing one’s work for academic promotion and that they aid in the formation and development of one’s career.^{13, 14, 15}

A Clerkship Director's Educator Portfolio

Conceptualize the “clerkship director” portfolio by considering the types of activities that reflect an educator’s major areas of academic effort, achievement, and professional interest. One style of portfolio starts with a short narrative of professional goals, educational philosophy, and a summary of the most important educational endeavors that will be included.

Describing ones’ educational activities is the first step in the progression of reporting on scholarship and gathering evidence. Faculty members can begin by listing educational activities and provide (1) a description of each as it falls within a given category; and (2) evidence that demonstrates such characteristics as the quantity, quality, and/or scope of the activity, including evaluative feedback.

Activity descriptions are usually short annotations that illustrate the work. They usually begin with the duration of the activity; the title of the clerkship director’s role; and his/her responsibilities. That format allows the medical educator to highlight such items and activities as a clerkship syllabus; a list of student advisees and responsibilities to those students; or descriptions of teaching programs that a clerkship director might provide. Two sample entries for Dr. Billings are shown in Table 1.

Table 1	
Sample Entries for Activity Descriptions	
2001 - Present	<p style="text-align: center;"><i>Senior Elective and Career Adviser for Medical Students</i></p> <ul style="list-style-type: none"> • Advise 2 to 3 students per year about senior year course work and residency interviews, applications, and selection process
2003 - Present	<p style="text-align: center;"><i>Clerkship Director: Required Clerkship in Medicine</i></p> <ul style="list-style-type: none"> • 160 third-year medical students complete 1-month clerkship each year • Recruit and retain full-time and community / volunteer faculty • Author and update clerkship syllabus • Teach a clerkship module on Chronic Obstruction Pulmonary Disease (COPD) • Prepare annual budget and compensation agreements for faculty

After the description of the educational activity comes evidence that indicates the activity’s quantity, quality, and/or scope, such as the indicators in List 2.

List 2 Indicators to Quality, Quantity, and Scope of Activity
<ul style="list-style-type: none"> • How many of something (e.g., how often courses have been taught, how many students mentored) • How much of something (e.g., time spent in community education activities, satisfaction, or learning after a course) • How many / much as a comparison (e.g., satisfaction or learning from one's teaching compared to others in the same course or compared to a historical benchmark) • Sustained or increased registrants into an elective • Evidence that the curriculum has been adopted at other medical schools • Honors and awards for teaching or clerkship • Outside review (e.g., LCME) that indicates the strengths of the activity.

As the examples show, evidence can be simple, such as counts of events or people; or complex, such as longitudinal or comparative data with appropriate statistical analysis.

Several published models describe portfolio categories and samples of materials. The following five are common in medical education:^{12, 13}

List 3 Five Common Portfolio Categories
<ul style="list-style-type: none"> • Curriculum development • Teaching • Assessment • Advising and mentoring • Educational administration

The categories above might be those a clerkship director would consider for his or her portfolio, but categories would vary by director and by roles. If an institution has guidelines for portfolios, the latitude to determine reporting categories will be known. If an institution has no guidelines, begin with those discussed above, supplemented by others that emerge from reading the chapters of this guidebook. Try to include any area where a great deal of effort is expended or where there is a significant interest.

Table 2 offers other examples of clerkship director activity categories, along with samples of evidence that could demonstrate value and scholarly contribution.

Table 2	
Examples of Clerkship Director's Educational Administration Scholarship and Sample Evidence	
ACTIVITY	EVIDENCE
Long-term record of successful preceptor recruitment and retention.	From a preceptor survey, content analysis of preceptor comments about satisfaction with students & clerkship recognition.
Volunteer faculty database creation and management.	Letters of appreciation from outside departments that adopted database.
Comparable high quality of learning experience for all third-year clerkship students across all teaching months.	Chart that displays these scores / findings.
Quality and accuracy of budgetary planning.	Auditor report of the quality and comprehensiveness of budget and planning documents.
Effective and collaborative networking with chair / other campus departments to promote clerkship integrity.	List of invited presentations given at annual institutional clerkship retreat, including evaluation summaries.

The categories in Table 2 are activities within the category of “educational administration,” and are quite reasonable in that they represent academic effort, achievements, or professional interests. In fact, one administrator’s portfolio has been piloted and reported, with several other category types.¹⁶ Other clerkship directors may have activity categories related to “clinical teaching” or “learner assessment” or the like, depending on one’s professional emphasis. Activities and evidence could be entered within a broad variety of educational categories.

Progression of Scholarship Development

From the authors’ practical experience, we think that a clerkship director’s educational activities can be viewed along a progression toward scholarship that has three somewhat overlapping phases.

As to Phase 1, it is often difficult to go back and find evidence, such as teaching evaluations and letters of appreciation. Begin as early as possible to systematically store evidence, but it is never too late to start. Hold early conversations with colleagues to explore the areas of your work that can be pursued with a scholarly approach.

An early start also is important in Phase 2, when the clerkship director assumes a role of investigator of his or her own clerkship. Simple questions can be powerful, such as:

- How satisfied are volunteer faculty members with the organization of this clerkship?
- How do grades vary by month or by year?
- What are the three top strengths and three top weaknesses of this clerkship in the eyes of students who select this specialty?

Table 3 Progression of Educational Activities to Scholarship		
PHASE I	PHASE II	PHASE III
Report / refine categories of main activities & evidence	Establish a scholarly approach to key activities	Review and disseminate scholarly activities
<p><u>When:</u> Anytime, the sooner after clerkship director appointment the better.</p> <p><u>Emphases:</u> Identify personal goals, interests; describe main activities that flow from them.</p> <p><u>Activities:</u> Review examples of portfolio categories and samples of evidence; create and use an accordion-like file and system of tabs.</p> <p><u>Role of colleagues:</u> Identify academics who would challenge you toward realizing scholarly contributions; engage administrative support to help maintain accordion file.</p>	<p><u>When:</u> Anytime, preferably within 1 year after clerkship director appointment.</p> <p><u>Emphases:</u> Develop answerable study questions and seek answers about the clerkship activities.</p> <p><u>Activities:</u> Systematically collect work descriptions and evaluative evidence of quality; stay current on literature in select areas; add and refine evidence.</p> <p><u>Role of colleagues:</u> Develop relationships with identified academics as mentors, peers, and resources; exchange support; request peer review of main activities.</p>	<p><u>When:</u> Anytime after or concurrent with Phase 2.</p> <p><u>Emphases:</u> Best scholarship about main work duties and achievements.</p> <p><u>Activities:</u> Place work into context of knowledge base; prepare and submit workshop proposals and share innovations; keep portfolio and CV consistent.</p> <p><u>Role of colleagues:</u> Peer review of all portfolio categories; writing consultant to assist with abstract and manuscript preparation; mentor's advice about targeting certain meetings and journals.</p>

Adapted from Richlin (2001)

Knowing the literature in the area and approaching the questions with a scholarly approach represent Phase 2. Answers to those questions are also useful in improving the clerkship. Finally, in Phase 3 the emphasis is on advancing knowledge beyond the clerkship and into the field of medical education.

Return to Dr. Ann Billings

Dr. Ann Billings, in our example, is to meet with her chair. She has started documenting her educational activities and collecting evidence of the associated scholarship. However, she is neither sure how to prepare the evidence of educational scholarship for evaluation nor how the evidence will be evaluated. Her case presents a “not-uncommon” situation where faculty developers are often brought into the picture as consultants on scholarship development.

When preparing evidence of educational activities for evaluation, the following are useful guidelines:

- Evidence should be collected, reviewed, and reflected upon with an eye toward improving the corresponding educational activities. A critical analysis of the evidence overall may lead to changes and can be used for one’s own faculty development. Look

- for the exemplary evidence for promotion purposes: a representative sample of the best work will demonstrate the quality and impact of the overall effort.
- Educational evidence is considered at a scholarship level if it proves to be of good quality, as determined by peer review, and demonstrates an impact, as determined by its dissemination in the field. Presentation to others is an essential component of the evaluation of evidence of educational scholarship. It is, in fact, the component that distinguishes scholarly work from educational scholarship. Scholarly work does not contribute to the scholarship of the field if it is not communicated to others.
 - Most educational activities could be developed into evidence of educational scholarship.

In Ann's case, the following recommendations can help her get a successful start on reporting activities and on initiating a scholarly approach, while also helping her to prepare for her meeting with her chair:

- She organizes a table of names of all the students she has advised during the past year, including places to enter their test scores, specialty choice, and match success.
- Ann asks her administrative assistant to update the database of all preceptors, including dates they began teaching, student contact months, recognition and contacts by her, and a system of annual letters of thanks from the institution.
- She initiates contacts with all CME and resident teaching sponsors for whom she has taught in the past year and requests session evaluation data from each. She initiates a filing system for routinely collecting all incoming evaluations of her teaching.
- Ann graphs her own clerkship teacher ratings against the ratings of all others in her department.
- Lastly, she asks her administrative assistant to graph the ratings of the clerkship against all other clerkships in areas of special emphasis in their clerkship, such as professionalism, interactive teaching, etc.

Ann Billings' case provides insight in how to prepare evidence of educational scholarly work for evaluation and demonstrates how one moves from educational activity toward scholarship. But she is neither sure how to prepare the evidence of educational scholarship for evaluation nor how the evidence will be evaluated.

Case Vignette — page 2

Ann remembers she received a report from the medical school with regard to student ratings of all third-year clerkships. In reading the report, she noted that students reported being satisfied with the feedback they received from faculty in the medicine clerkship. That is a significant result, Ann knows. She had been working on that very issue over the past year because students had expressed dissatisfaction with faculty feedback in her clerkship the prior year, as evidenced by the ratings they had given. Reflecting on the steps and initiatives she took to get to the subsequent positive result, she decides she will include that effort as exemplary evidence of a scholarly activity and share it with Dr. Shaker. And, she is sure, it would be worthwhile to ask him for suggestions in developing scholarship that can be associated with her role as a clerkship director.

Ann begins developing a worksheet (appendix I), in preparation for the meeting with Dr. Shaker.

Developing your own worksheet: an exercise

Below is the outline of a brief exercise that can help as one begins developing a worksheet.

Goal

The goal of this exercise is to begin to reflect on one's own educational activities. Select one of those activities and use it to develop your own progress worksheet (see appendix I).

Directions

Think for a few minutes about the many educational activities in which you are involved as a clerkship director.

Now, slowly narrow your focus and concentrate on re-creating one specific activity that you want to develop into scholarship. While the activity may be complex, try to think about specifics. For example, what scholarly products or results might emerge and what might be considered scholarship related to the activity?

Then select another activity and repeat the steps.

Think creatively and think out of the box!

Next Steps

Share it with a colleague.

From that discussion and other feedback, update the worksheet and, when you meet with your department chair or your division chief, use it as a framework to discuss your educational activities and your scholarship. Seek to better understand what is valued in your department and in your medical school.

Table 4 Progression of one activity from Phase I to Phase III Educational Scholarship (based on case provided)		
I. Educational Activity	II. Scholarly Project and Result	III. Scholarship
<ul style="list-style-type: none"> • Assemble data from evaluations • Review student performance from evaluations • Design / recruit student focus group • Identify clerkships to visit and ask to observe • Identify colleagues within the institution, based on results of preliminary analysis • Schedule agenda item on relevant topics at staff and departmental meetings • Design an intervention (workshop) to address identified problem(s) 	<ul style="list-style-type: none"> • Analyze evaluation data. • Ask faculty how they give feedback to students. • Conduct a focus group or survey for students' view of faculty feedback. • Review student achievement to identify strengths and weaknesses in performance and opportunities for effective feedback during the clerkship. • Observe clerkship activities and student/faculty interactions. • Learn what is known in the field and literature about effective feedback. • Consult with expert academics within the institution on how to promote effective feedback. • Promote discussions around effective feedback among faculty. • Survey faculty about their perceptions of their own feedback skills before and after intervention. • Conduct an intervention (workshop) with faculty on how to give effective feedback. • Assess data (control group, pre- and post-intervention). Conduct new daily observations. Implement informal follow-up survey with students about faculty feedback. 	<ul style="list-style-type: none"> • Share experience with colleagues from other departments in and outside the institution. • Identify those already adopting similar or other strategies in clerkships to address the same educational problem. • Meet with chair to share: <ul style="list-style-type: none"> ○ analysis of new results and comparison with previous data; ○ current application/adaptation of strategies at other clerkships; ○ plans to present work at local, regional or national meetings; • Gather all notes and evidence of the experience and begin designing guidelines for how to give and receive effective feedback.

In Table 4 we see a goal of Dr. Ann Billings that is related to improving students' evaluation of the medicine clerkship. In particular, students are not satisfied with the feedback they receive from the faculty. Students state that they experienced delays in feedback or received no effective feedback from faculty members.

A few of the next steps are listed below:

- Incorporate his/her feedback and suggestions for improvement.
- Ask colleagues to review her work and incorporate their suggestions.
- Submit work to a peer review repository.
- Incorporate work to a peer-reviewed workshop, panel presentation, or grand rounds.
- Submit work for publication to a medical education newsletter or journal.

Three Suggestions to Enhance Success as an Educator

Ann Billings, in thinking about what she can do to enhance her success as an educator in her scholarly endeavors, looks to the literature and finds three main suggestions, the first of which she has begun.

Review educator portfolios and CVs of other faculty who are educators and seek junior-senior faculty mutual support

Clerkship directors should search out both senior and junior faculty for help with preparing CVs and portfolios. They should review educator portfolios and CVs of other educators to discover new areas of investigation and new ways to present their work. Junior faculty should be encouraged to seek out senior educators as mentors to enhance their work and assist with research and with their promotion. Senior faculty, in turn, should seek out and work with junior faculty, which would advance their education leadership and mentoring roles. All faculty members should be encouraged to constantly review and update their CVs. Clerkship directors should share their achievements and work with their division chiefs and department chairs.

Dedicate yourself to enhancing your learning as an educator

Educators constantly need to seek ways to enhance their knowledge as educators. Useful avenues include educational retreats; education courses at medical, public health, and education schools; and national specialty meetings where education courses and innovations in education and research are presented. Clerkship director's might consider formal additional degrees in education. Colleagues in education are critical: as future references for academic promotion, as contributors to education research, which is often more powerful if carried out with colleagues dispersed regionally and/or nationally; and as prior contributors, where building on previous successful educational endeavors of colleagues is always better than reinventing the wheel. Continued formal and informal education is essential for a successful clerkship director.

Avoid working in isolation

Seek out colleagues. Do research together. Apply for funding together. Seek out study design, curricular design, and evaluation experts to enhance your work. Join local and regional groups focused on education. Assume a leadership role in national education groups and specialty boards. Assume an active role as a reviewer for journals. Become a journal editor. All such

activities enhance the educator's professional standing, prevent working in isolation, and enhance promotion.

Working on those suggestions, a clerkship director will see a cohort emerge of teaching faculty who could form a group that collaborates on beginning the process of evaluating educational scholarship.

Evidence of Educational Scholarship — Who Are the Evaluators?

Educational contributions can be evaluated through a variety of tools and procedures, such as self-assessment, student ratings, tests of student performance, peer review, department chairs' observation, visiting team of experts, and simulated teaching.¹⁷ The previous guidebook for clerkship director's also discusses several evaluation methods for clerkships.¹⁸

What follows is a focus on the role of self-assessment, peer review, learners' ratings, and educational achievement as evaluative strategies that can help clerkship director's move their educational activities toward scholarship.

Self-assessment

According to Litzelman,¹⁹ p.152 "self-assessment involves reflection, interpretation and appraisal of one's own skills." Critical self analysis of evidence is key in the pursuit of progress and professional development when preparing evidence of educational scholarship for evaluation. Clerkship directors should engage themselves in a continuous self-assessment of educational evidence to reflect on what they are actually doing and identify potential strategies that will help them cultivate evidence in a scholarly way and move such evidence toward scholarship. For example, if a clerkship director lists "mentoring" as an educational activity, the following questions would be relevant in a self-assessment:

- How many advisees do I have?
- How often do I meet with them?
- How much time do I spend with them?
- What is my accessibility to them?
- How do I demonstrate that I care for their professional growth?
- What guidance and resources do I offer them?
- How satisfied are my advisees with the mentoring that I provide?
- What have my advisees accomplished that could demonstrate evidence of the impact of my mentoring?

Answering similar self-reflective questions about any educational activity can help clerkship director s move their educational scholarly work toward scholarship.

Peer Review

Peer review is one of the most important foundation stones of scholarship. It establishes the importance of the educational activity, the adequacy of the method or the procedure followed by the author/s, and the actual or potential impact of the results. Peer review can also result in specific suggestions in the form of feedback to improve the work.

It is crucial that those who conduct peer review have appropriate preparation to do so. Peer reviewers can be colleagues from the same or other departments, and even from outside the institution, but they must be recognized as academicians who are well-known as educational scholars within the academic community and who have demonstrated an understanding of the scholarly work one would be presenting.²⁰ They must be capable of judging whether an individual's work meets the quality and standards of scholarship in the academic community.²¹

Peer review has been a traditional and systematic evaluation tool in research, but medical education has only recently started developing its own peer review processes. Reviewer lists, similar to those of scholarly journals, can be generated by professional organizations or even the institutions themselves (see appendix II). However, dissemination of scholarly educational products is required and "clearinghouses" need to be developed to fulfill that need. This is in response to and reinforcement of Glassick,^{9, 10} who posited that to demonstrate scholarship, all scholarly products must be peer reviewed for quality and publicly disseminated for others to learn from and build upon. While more academic institutions are accepting a broader view of what constitutes scholarship and its enduring products, few are developing internal peer-review processes. Clerkship directors themselves may need to develop a peer-review system within their respective departments or institutions.

How can clerkship directors find peer reviewers for their work? Some strategies to build a peer review process include (1) finding colleagues in the same department or institution and asking them to agree to review work according to guidelines discussed; (2) finding colleagues outside the department or institution and asking the same of them; and (3) submitting work and educational materials to the emerging web-based repositories for peer review (appendix III).

What are some guidelines and what feedback can be expected from a peer review? Reviewers should evaluate the educational activity in relation to standards of quality and impact, but they can also assist clerkship directors when they share their knowledge (e.g., about other clerkship programs); ask questions about issues needing clarification in the design of the curriculum; offer ways to convey the information more clearly; make suggestions about intended audience and possible public venues for its dissemination; and, as to Web resources, direct attention to important and related work/materials that could better fulfill users' needs and improve the design and functioning of a site.

Student Ratings and Educational Achievement

Our learners provide another critical level of evaluation review. According to Shapiro and Coleman,²¹ "scholarship of high quality, excellent credibility, and powerful impact is most likely to be recognized when the process incorporates both review by peers and input from the beneficiaries of the scholarship." (p. 898) Evaluation of the work by beneficiaries should then complement the evaluation conducted by peers.

A review of the literature (Griffith,^{22, 23} Stern²⁴) revealed that student ratings of teaching effectiveness could predict certain learner outcomes. Thus, learners' performance on examinations from Objective Structured Clinical Evaluations to traditional paper and pencil testing can be reviewed to assess the outcomes of faculty teaching.

Learners' review of teaching can provide insights into:

- the clarity of the course goals;

- the adequacy of the organization;
- the appropriateness of the materials used (for example, handouts and readings);
- the competence of faculty teaching performances (teaching strategies used, faculty tone of voice and eye contact, use of blackboard and multimedia, listening to learners' questions, concerns and opinions, allowing learners to express uncertainty, encouraging learners' participation);
- the knowledge/skills acquired (as a consequence of/from) faculty teaching;
- the appropriateness of the evaluation tools used (for example, clarity of evaluation protocols and types of methods of evaluation);
- the quality of faculty feedback to learners (for example, descriptive rather than judgmental, constructive rather than detrimental, and combined with suggestions for improvement)
- overall strengths and weaknesses of the session.

As our Dr. Ann Billings case illustrates, learners' input, and not just educational achievement, can be a useful source of information, providing evidence of a clerkship director's scholarly educational activities.

Support Systems at the Institutional and Departmental Levels

Clerkship directors and their department chairs should agree upon what educational activities will be valued in the department. They can then set about advancing his or her educational activities into scholarship, as discussed previously.

But everything one seeks to do must take place within a context — specifically, within the departmental and institutional framework within which one works. This section examines the hospital culture in which clerkship director's work and what elements of that culture can enhance their professional success, both professionally within medicine and academically within medical education.

Taking a broad look at context, Ludmerer²⁵ astutely noted that education is the primary mission of a medical school and that of a hospital is clinical care. But teaching most certainly occurs within the hospital and particularly within the clerkships. Often the culture of any hospital, with its emphasis on patient care and faculty supervision, tends to marginalize the role of the learner, the resident, the student — and even the teacher. That culture places an inordinate emphasis on faculty success in research and in rapid and efficient health care, which in turn limits the time available for the reflective and purposeful teaching of students. Rapid patient flow into and out of inpatient and outpatient settings further restricts the opportunity for effective teaching.

The clerkship director, whose primary responsibility and focus is education, stands somewhat apart in an environment far more attuned to reward success in care and research. What can a hospital department chair do to enhance both the role of education and the educational mission of a clerkship director in such an environment?

Five Specific Recommended Steps

1. Enhance the status of education within the hospital culture

The direction and importance of any mission is most often set from the top. Deans of medical schools have to be clear about their expectations of department chairs regarding student

education. Department chairs must clearly articulate and emphasize for division chiefs and faculty the vital importance of education and not have it compete with clinical care and research.

A department chair's active personal involvement in student teaching sends a very clear message to the rest of the faculty. If clinical care and research are more the responsibility of division chiefs, the education of students and residents is that of the department chairs, who delegate responsibility for day-to-day operations to clerkship and program directors. Support for clerkship and program directors comes from adequate finances (salaries and program support, see "Financial Support," below) and from time allotted for scholarship and academic educational activities. The department chair above all must support the clerkship director in the quest to have the best teaching faculty members in the department educate the students. Both the dean and the department chair should care about the evaluation of the quality of the clerkship to improve it. The department chair should meet with the dean regularly to provide information about the educational contributions of the faculty who teach in the department and collaborate in carrying out the mission of the medical school's curriculum. Changes in the clinical departments in understanding the challenges associated with the expanded view of scholarship can take place, as Nora et al. report.⁶

2. Build an infrastructure

Department chairs can build an infrastructure of faculty who share a common interest in teaching. Led by a vice chair of the department or a senior faculty member, such faculty would be assigned education as their responsibility. The chair would gather the leaders of the various programs — clerkship, residency program, fellowship, and/or continuing medical education. Leaders from such units would represent the nucleus for an effective medical education corps. Most hospitals have some or all of those participants within every department. Generating opportunities for them to work and learn together will have important supportive and synergistic effects.

Add to this the leadership role the medical school can assume in bringing clerkship, residency program, and fellowship directors together across institutions to share experiences and to learn together within and across their specialty areas. Teaching faculty continuously seek to learn new teaching methods. Clerkship directors are uniquely placed to take a leadership role in scheduling retreats and skills development sessions to further the importance of medical education.

3. Promote faculty based on contributions to education

Educators must be promoted for their work to be valued. Department chairs can: establish an education track with clearly laid out promotion criteria based on educational achievement; infuse the culture within the departmental promotion committee with standards that value educators as well as investigators and assure promotion to higher ranks where appropriate; identify knowledgeable senior faculty who can mentor junior faculty in the promotion process; and encourage faculty affairs offices to provide advice on preparing CVs and portfolios.

Lastly, department chairs must regularly review all education faculty members to be certain that none are languishing at lower academic ranks, and be ready to assist in steps to enhance their promotion.

4. Assume Financial Support

Dollars must be identified and earmarked to support faculty who teach, especially those who lead the educational enterprise, such as clerkship directors. Such funds should be

predominately controlled at the chair level. In large departments where budgets are controlled at a divisional level, salary support for educational time must be carefully calculated and assured. Department chairs can lead initiatives to identify federal and state funds that can be channeled to the educational effort; champion private philanthropy targeted to support educational programs and innovations; and work to create endowments that support programs and/or endowed chairs that focus on education.

5. Promote a Supportive Educational Climate

One of the greatest impediments to scholarly achievement in education is the lack of a supportive organization and environment where educators can gather to carry out high quality work. Educational working groups can be formed (similar to a division that aggregates around common interests – i.e., cardiology, gastroenterology) to help teaching faculty carry out their research and scholarship together and to avoid isolation that prevents peer interaction and input. Medical schools have formed academies, societies, and similar structures where teaching faculty can share information, enhance scholarship, and actively participate in research. Similar groupings should occur in the hospital within and across departments for similar purposes. Thus, educational research can be critiqued and feedback provided, support staff identified, and funding sources mobilized. Opportunities to present work nationally (at education and specialty meetings) and locally (medical education research days, grand rounds presentations) could be supported and encouraged.

Although a supportive culture and environment for medical education is critically important, in the end the successful clerkship director must aggressively develop and promote his or her educational skills to achieve personal success within the institution at large. If the resources and support within the department are not developed, they may be available elsewhere at the institutional level.

Institutional Support for Promoting and Recognizing Scholarship

On-campus resources can help clerkship directors engage in scholarly activity related to their responsibilities as clerkship directors. These may include a faculty development center, an academy (or society or guild), individual mentors, and educational research groups.

Faculty Development Centers

Faculty Development Centers are in place at many medical schools and they typically concentrate on teaching skills and/or career development. Both aspects are valuable, especially for clerkship directors who are new in their role, want to become involved in scholarly work, and are not yet full professors. It can be useful for clerkship directors and other clinicians to take advantage of the offerings of the school's faculty development center. A faculty development center also is a valuable resource for mentors.

Faculty development centers help faculty acquire skills and help academies recognize and reward accomplishments, typically in education. Often the rewards are symbolic rather than monetary, but they show that teaching is valued and contributes to promotion and tenure decisions.

Academies, Societies, or Guilds

Such organizations have been organized on medical school campuses since the early 1990s, but have become more prevalent since 2000. They are often created to help education regain its formerly central role in academic medicine. Irby²⁷ suggests that an infrastructure, apart from

departments, is needed to support education, teaching, and educational scholarship. Academies, which may be the infrastructure, possess four identifying characteristics:

- A mission that advances and supports educators, provides faculty development, promotes curriculum improvement, advances educational scholarship, and offers protected faculty time for education.
- A membership composed of distinguished educators who are selected through a rigorous peer review process that assesses contributions to teaching, mentoring, curriculum development and leadership, and educational scholarship.
- A formal school-wide organizational structure with designated leadership.
- Dedicated resources that fund mission-related initiatives.

If the school has an academy, it is worthwhile for the clinician or clerkship director to become a member and/or participate in its offerings. Selection processes and requirements for membership vary.²⁷ Some examples are presented in Appendix IV. The Baylor Academy uses a peer-review process similar to that of NIH to evaluate an applicant's scholarly products and activities, which are submitted as a portfolio. Criteria for the assessment of scholarship, based on Glassick,^{9, 10} form the basis for the reviewers' ratings. The Academy for Excellence in Teaching at the University of Illinois at Chicago, on the other hand, includes all faculty members who have received teaching awards or are involved in teaching.²⁸

Academies and societies offer various programs, which frequently include mentoring of junior faculty; supporting a core of teaching faculty; advocating for promotion of clinician-teachers; providing a forum to recognize excellence in education; advocating for educational scholarship; providing funding for innovative educational projects; and promoting curricular innovation. Memberships range from 20 to more than 250, and funding from \$10,000 per year to a \$6 million endowment. Such organizations have demonstrated the feasibility of interdisciplinary infrastructures as a mechanism for presenting educational accomplishments for peer review.

Mentor Support

Mentors are needed as guides for all stages of career development. A single mentor rarely fills all of one person's mentoring needs, so it is useful to seek multiple mentors for various dimensions of one's career development. Mentoring relationships typically develop over time and often start with a short-term commitment related to a single topic. Some schools have had success with assigned mentor and protégé matches when a well-planned and organized program is in place.²⁹ While within-department mentoring may provide the best "local" advice, it is useful to seek mentors who are not in your own immediate work environment, because they may stimulate ideas about new ways of doing things. In addition, identifying a faculty member with whom you would like to interact and who has shown some interest in your career development is beneficial. Be prepared to receive "real" feedback that is balanced, constructive — and not always positive.

Availability of mentors for educational research or other forms of scholarship varies within institutions and beyond, but on campus you may want to get together with other clerkship directors, who are involved in scholarship similar to what you do or might want to do. See if your school has an Office of Educational Support/Development, or statisticians (possibly at university level) who may be able to help. Many vice/associate deans are involved in education, as are faculty in the field of Instructional Technology. Beyond your campus you might want to become involved in the American Association of Medical Colleges (AAMC) Group on Educational Affairs.

This group has both national and regional meetings where educators gather to share innovations, research findings, and ideas. Your own clerkship directors' organization is often a good place to find mentors and keep up to date in the field of medical education. Your school may not have a faculty development center, an academy, society, or guild of outstanding educators, or a formal mentoring program. But every school or national group has effective mentors. Most effective relationships start with the mentee and involve an initial, defined, time-limited commitment. Take the initiative to seek out a mentor and explore the possibilities. Some mentoring relationships flourish; their domain expands and they become long-term and immensely rewarding.

List 4 Characteristics of Effective Mentors³⁰
<ul style="list-style-type: none">• Desire to nurture junior or less-experienced colleagues• Are accessible• Are content experts• Are respected in the field• Are approachable• Are honest• Are supportive and encourage mentee's ideas• Are willing to give balanced feedback (positive and negative)• Are willing to commit to mentoring relationship• Are willing to share resources• Challenge mentee to expand abilities• Appropriately acknowledge mentee's contributions• Share successes and disappointments• Help mentee develop a network of relationships

Identifying "right" mentors is important, but being a good mentee also is important in forging an effective, ongoing relationship.

List 5 Tips for Being a Valued Mentee
<ul style="list-style-type: none">• Take initiative• Seek feedback and don't be defensive• Make being a mentee a priority (be on time, meet agreed-upon commitments)• Ensure adequate time to fulfill the project for which one sought a mentor• Meet deadlines• Take initiative/be proactive• Keep your mentor apprised of successes and disappointments• Appropriately acknowledge your mentor(s)

Educational Research Groups

It is useful to join an educational research group if one is available on-campus, or an educational research journal club. Clerkship directors also can create their own group by identifying colleagues with similar interests and varying levels of expertise. The group could meet to brainstorm about projects and share findings in the literature. If someone of note visits the institution, have your group be part of the proceedings or arrange to meet with the visitor, even informally.

Summary

Opportunities for faculty members to contribute to educational scholarship have grown over the past 15 years. Activities in teaching, mentoring, curriculum development, and/or educational administration can now be recognized as scholarship. We have highlighted what clerkship directors might find helpful in moving their educational activities into scholarly work and then into scholarship. We aimed to provide a practical approach in understanding how clerkship directors can enhance an educational activity, seek peer review, and disseminate their product. We described the role of the leaders of medical institutions and departments to support clerkship directors' educational contributions in the progression toward scholarship. We hope we have given clerkship directors a practical understanding of how they can engage in educational scholarship as they provide essential medical education for our leaders of tomorrow.

APPENDIX I
Progression of Selected Area from Phase I (Educational Activity) to Phase III (Scholarship)

Worksheet Recording Progress of Clerkship Director Activities toward Scholarship		
I. EDUCATIONAL ACTIVITY	II. SCHOLARLY PROJECTS & RESULTS	III. SCHOLARSHIP
1.		
2.		
3.		
4.		
5.		
EXAMPLES		
<u>Goal:</u> Recruit / retain excellent volunteer faculty to teach in the clerkship. Institute spreadsheet to track teachers and teaching.	Update spreadsheet and analyze reports. Feedback to advisory council and collaborators at quarterly meetings.	At national meeting, report volunteer faculty trends in teaching, satisfaction and intentions to continue teaching.
<u>Goal:</u> To improve the weekly core teaching conference.	Have a colleague observe the conference and give you feedback. Receive feedback from the students. Read the educational literature and apply principles of learning theory to your teaching.	At national meeting, present a workshop on your new core conference teaching, develop guidelines on how to effectively teach in this format, prepare a grand rounds to share the content and the applied pedagogy .

APPENDIX II Portfolio Web Resources

Reviewed all 125 medical schools using AAMC Website November 2002- February 2003

UNIVERSITY OF ARKANSAS FOR MEDICAL SCIENCES, COLLEGE OF MEDICINE

- Instructions for Completing the UAMS Educator's Portfolio. Organization & Contents of EP (Defines leadership roles and associated activities)
- EP Template Information for both items found on their Continuing Medical Education & Faculty Affairs Web site: www.uams.edu/cmefa/faculty_affairs/promotion_tenure.asp.

UNIVERSITY OF FLORIDA, COLLEGE OF MEDICINE

- Teaching Activity Report form Assessment
- Activity Report form
- Reference Page on EP
- Methods of Instruction with detailed examples of each section including leadership Information found on their Society for Teaching Scholars Web site: www.med.ufl.edu/oea/opfd/faculty/sts/portfolio1.shtml

UNIVERSITY OF COLORADO HEALTH SCIENCES CENTER, SCHOOL OF MEDICINE

- Suggested Format for Teachers' Portfolios
- Suggested Format for Clinicians' Portfolio (has a brief description of administrative leadership)
www.uchsc.edu/sm/sm/Teacher%20Statement%207-15-04.pdf
www.uchsc.edu/sm/sm/Clinical%20Portfolio%207-15-04.pdf

UNIVERSITY OF CHICAGO PRITZKER, SCHOOL OF MEDICINE

- "Electronic" Teaching Portfolio – faculty has the option to complete in a hard copy (Word/WordPerfect document) or electronically and their document is saved on UCP server. Not required that faculty members use this tool for documenting their teaching activities; however, it is a format that the promotion's committee has begun to expect when reviewing teaching efforts.
- Also Center for Teaching and Learning Web site has resources from other medical schools regarding portfolio development <http://portfolio.bsd.uchicago.edu> and <http://teaching.uchicago.edu/selfhelp/portfolio.html>

WAYNE STATE UNIVERSITY, SCHOOL OF MEDICINE

- Faculty Senate Web site includes: Teaching Portfolio Summary and template, PowerPoint presentations on documentation, EP www.med.wayne.edu/faculty_senate/
- 1st search was conducted using the following terms: portfolio, teaching portfolio, dossier, faculty dossier, educational dossier, scholarship dossier, scholarship of teaching, educator's portfolio, electronic portfolio, faculty portfolio, faculty development, promotion, rank and tenure, handbook, faculty handbook.
 - 8 schools have secured sites
 - 47 schools with no information related to EP.
 - 70 schools had some type of reference to scholarship and how to (e.g., handbook inclusion, Website, handout), document (e.g., Educator's Portfolio, Promotion Dossier, Teaching Portfolio, Guidelines for Promotion, Faculty Assessment Form, P&T Dossier)
 - Out of the 70 schools - 26 have only a brief description of documenting scholarship in their faculty handbooks related to promotion.
- Second search was conducted January - February 2003 using the following additional terms: faculty guidelines, guidelines, promotion packet. No change in results.
- Third search was conducted week of February 17, 2003 using the terms: faculty guidelines, guidelines of promotion, promotion packet. No change in results.
- Follow-up search (using the terms leadership, administrative service, service) was conducted March 2005 for 10 of the medical schools that were site in 2002-03 for having EP resources on their external Web sites for faculty (public) to view.

Contributed by Diane Brown, Office of Educational Services, Medical College of Wisconsin

APPENDIX III
Peer Review Web-Base Repositories

Peer Review Repositories	Main Characteristics
<p>AAMC – MedEdPORTAL (formerly CACHE, Competencies Across the Continuum of Health Education)</p> <p>www.aamc.org/meded/mededportal/cube/start.htm</p>	<ul style="list-style-type: none"> • Promotes collaboration across both disciplines and institutions by facilitating the exchange of peer reviewed educational materials, knowledge, and solutions. • Faculty and medical schools may publish and share instructional and assessment materials. • Much broader scope than any other medical education repository. • Reviews and publishes basic teaching multimedia, faculty development materials and virtual patients. • Reviewers are medical faculty members. • Relies only on invited reviewers • Submissions are peer reviewed using a standardized instrument developed by an AAMC Peer Review task force based on accepted standards of educational scholarship (see sample of items below). • Plans to create an Educational Standards Repository, a system that will provide users with unprecedented ability to precisely locate materials they desire. • Plans to provide faculty with information regarding the number of times their published resource has been downloaded and used by others. <p>(Retrieved from www.aamc.org/meded/mededportal/faq.htm#top, 3/19/05)</p>
<p>HEAL (Health Education Assets Library)</p> <p>www.healcentral.org/submit/submitInstructions.jsp</p>	<ul style="list-style-type: none"> • Digital library • Provides freely accessible digital teaching materials of the highest quality • Encourages educators to submit their innovative resources for review and publication in the HEAL Reviewed Collection (See sample of items below) • Reviewers are health sciences and clinical sciences educators • Calls for reviewers regularly <p>(Retrieved from www.healcentral.org, 3/19/05)</p>
<p>STFM Bookstore (Society of Teachers of Family Medicine)</p> <p>http://www.stfm.org/bookstore/</p>	<ul style="list-style-type: none"> • Publications are peer reviewed to determine their usefulness and applicability. • Review of publications for marketing by STFM is available to all Society members. • Reviewers are members of the society. • For inclusion, publications must meet one of three criteria: (1) Published by the Society of Teachers of Family Medicine; (2) Written or edited by a member of the Society; • (3) Not generally available through usual sources <p>(Retrieved from www.stfm.org/bookstore/, 3/19/05)</p>

<p>MERLOT (Multimedia Educational Resource for Learning and Online Teaching)</p> <p>www.merlot.org/Home.po</p>	<ul style="list-style-type: none"> • Designed primarily for faculty and students of higher education. • Collects links to online learning materials along with annotations such as peer reviews and assignments. • Evaluation standards can be used by faculty to select new materials to submit, review existing materials, and provide requirements for the development of new materials. • The three general categories of evaluation standards used are: (1) Quality of Content; (2) Potential Effectiveness as a Teaching-Learning Tool; (3) Ease of Use. • Learning materials are organized into discipline communities • Reviewers are higher education faculty members and peer users of the materials as opposed to peers authors of the materials. <p style="text-align: right;">(Retrieved from http://taste.merlot.org/catalog/peer_review/eval_criteria.htm,3/19/05)</p>
<p>EPERC (End of Life/Palliative Education Resource Center)</p> <p>www.aahpm.org/resources maintained by the American Academy of Hospice and Palliative Medicine</p>	<ul style="list-style-type: none"> • Shares educational resource material among the community of health professional educators involved in palliative care education. • Fast facts, peer-reviewed and other educational materials can be searched. • New materials can be submitted to this web-site repository. • Reviewers are health sciences and clinical sciences educators. <p style="text-align: right;">(Retrieved from www.eperc.mcw.edu/purpose.htm, March 19th 2005)</p>

SAMPLE of items from MedEdPORTAL AND HEAL

Web-Peer-Review- Evaluation Form (Standardized Instrument)

(Retrieved from www.aamc.org/meded/mededportal/faq.htm#top
and www.healcentral.org March 19, 2005)

Goals <ul style="list-style-type: none">• Targeted audience is identified• Description of material is accurate and up-to-date• Description of material includes clear goals or statement of purpose
Preparation and content quality <ul style="list-style-type: none">• Content is accurate and up-to-date throughout the material• Citations, references, credits and/or links are relevant• Citations, references, credits and/or links are complete
Methods: effectiveness of materials <ul style="list-style-type: none">• Instructional/assessment methods are appropriate for the stated goals• Multimedia is effectively used• Learning activities are used effectively (e.g., learner navigation)• Feedback is used effectively• Methods maintain learner dignity• Materials is engaging
Presentation and ease of use <ul style="list-style-type: none">• Material is easy to install• Application, loads, launches, and executes smoothly• Material is easy to use• Material offers effective help functions• Content is clear and well-organized• Video quality is good• Audio quality is good• Image/illustration is good• The quality of the specimens is good
Significance <ul style="list-style-type: none">• Material offers an innovative learning/teaching method• Evidence of product effectiveness is provided• Documentation describes how the material builds on prior work• Material contributes to the field• Material can be customized to fit a range of curricula/course
Reflective critique <ul style="list-style-type: none">• Documentation includes lessons learned, future directions or suggestions for adaptations or extensions• Documentation provides sufficient information to guide others in using the materials

APPENDIX IV
Characteristics of Select Academies or Societies

SCHOOL	SELECTION PROCESS	MEMBER CHARACTERISTICS
Baylor	Self-nomination; NIH-style review panel	Excellence in teaching and scholarship
University of California, San Francisco	Self and chair nomination; Peer review – internal and external	Excellence in at least one defined aspect of student education
Harvard	Self and chair nomination; Peer review – internal and external	Excellence in at least one defined aspect of student education
Univ. of Illinois, Chicago	All recipients of teaching awards, all faculty involved in teaching	Be part of teaching faculty
Mayo	Self, chair, or school nomination; negotiation between department chair and dean	Core teaching faculty – excellence in medical student teaching
Medical College of Wisconsin	Chair or peer nomination; internal peer review	Innovation and excellence in scholarly teaching

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