only 20% of common cardiac findings. Internal medicine residency programs do not regularly teach physical examination. These concerns and findings were confirmed by a needs assessment of our learners, the internal medicine residents at Johns Hopkins Bayview Medical Center. The residents agreed strongly that they would like to have better physical examination skills, that they would like to participate, and that it is the responsibility of the teaching faculty to help them improve their physical examination skills by teaching the physical examination. They wanted to learn the cardiac physical examination more than any other physical examination topic.

As a direct result of the needs assessment, a cardiac physical examination curriculum was tested in 1997–99 and is being initiated. Several educational strategies are being implemented to assure that housestaff and teaching faculty will perfect their skills on this examination. For the resident these strategies are a syllabus with evidence-based articles on the physical examination; problem-based learning sessions, including a knowledge test; presenting journal articles on the cardiac examination; and programmed learning using interactive CD-ROMs with audio of heart sounds and video of echocardiography.

The needs assessment also demonstrated that the residents preferred to learn through direct patient contact; therefore, the critical educational component of this curriculum is the standardized patient. The standardized patients have echocardiographic evidence of (and cardiologist-confirmed) heart murmurs and are used in different ways throughout the curriculum. For example, when a new heart murmur is being introduced, the residents receive a one-hour teaching session (including a brief lecture) centered on standardized patients with that particular murmur. Each resident examines the standardized patients. Residents are expected to examine 20 to 30 patients during the curriculum.

Standardized patients are also used as part of the formal evaluation of the curriculum. Residents are evaluated by attending faculty observers, who assess their abilities to diagnose a particular murmur in standardized patients. This formative individual evaluation occurs at the end of each standardized patient encounter. For each resident the evaluation process includes four patients before and four patients at the end of the curriculum, providing summative evaluation of the individual residents and of the program.

The nine-month curriculum begins and ends with a knowledge-and-attitude questionnaire. Each resident participates in two to three sessions per month that use the many different educational strategies previously stated. Teaching faculty are given strategies on teaching the physical examination as part of the curriculum.

**Discussion:** The standardized-patient component of this curriculum has been pilot-tested. The residents strongly approved of the content as well as the presentation and materials and believed that their knowledge as well as their skills in the physical examination had improved. As a result of the strongly positive feedback, this more formal curriculum on cardiac physical examination is being implemented in academic year 1999–2000.

**Inquiries:** Rebecca Shunk, MD, Johns Hopkins Bayview Medical Center, A 104 West, 4940 Eastern Avenue, Baltimore, MD 21224.

---

**CONTINUING PROFESSIONAL DEVELOPMENT**

The Champions Project: A Two-tiered Mentoring Approach to Faculty Development

LINDA M. ROTH, PhD, WAYNE STATE UNIVERSITY

**Objective:** Using a variety of approaches to faculty development, academic clinicians continually strive to achieve higher levels of professional performance in key areas of competence. Traditionally, faculty have attended regional or national fellowships or workshops to hone their academic skills, but increasingly the complex and demanding working environment of academic physicians seriously complicates the scheduling, delivery, and reinforcement of faculty development efforts. Thus strategies must be designed to bring developmental programs closer to the working environment of the physician–teacher.

**Description:** Faculty in Wayne State University’s Department of Family Medicine have undertaken the Champions Project, a systematic, collaborative effort to achieve higher levels of professional performance in the five domains of patient-centered clinical practice and teaching, evidence-based medicine, practice-based research, professional academic skills, and leadership and organizational skills. Although facilitated by a medical educator who coordinates departmental faculty development, each domain is “championed” by a core department faculty member who has both skill and interest in the targeted area of faculty development. In turn, each “champion” chooses a national-level domain expert for long-term consultation to design objectives, instruction, and outcome measures for the content area. These faculty create and deliver, on an ongoing basis, a faculty development curriculum through which department members can continuously keep their knowledge up to date and improve their skills in each domain.
Discussion: The design of the Champions Project corresponds to recommendations for faculty development programs for full-time faculty. Through its annual developmental faculty evaluation system, the department conducts a systematic, ongoing needs assessment that tailors the faculty development curriculum explicitly to the department as a whole, its clinical sites, and its individual faculty members. The development program is delivered virtually in its entirety at the work sites of its learners, both during designated faculty meeting times and in each clinic through the champions. This integrated curriculum emphasizes both theory, supported by the faculty developer/educator, and practice, supported by the collaborating faculty member. To complement the faculty members’ work, each national-level consultant provides focused, current expertise. As a result, interventions are delivered by both knowledgeable and committed faculty. The program reinforces transfer of learning, as faculty from each clinic setting are taught together. Finally, because the program is facilitated through the developmental faculty evaluation system, it is tailored to fit the mission and become integrated into the higher organization. Thus the program works toward integrating development into the daily lives of faculty and the other members of the department’s teaching/research/patient care community.

In summary, we have implemented a program in which core faculty align with national consultants to become domain experts in key faculty development areas. In turn these faculty teach their colleagues. This approach may be used in a department or across a larger local community. Faculty can collaborate to identify methods for maximizing departmental or regional resources to create strategic, up-to-date, and ongoing developmental efforts.

Inquiries: Linda M. Roth, PhD, Department of Family Medicine, Wayne State University, 15400 W. McNichols—2nd Floor, Detroit, MI 48235.

REFERENCE

A Faculty Development Workshop on “Developing Successful Workshops”

YVONNE STEINERT, PhD, LOUISE NASMITH, MD, NORMA DAIGLE, RGN, MCGILL UNIVERSITY

Objective: Although workshops are a common faculty development format, efforts to improve the design and delivery of this teaching format have not been described. In 1998, the Department of Family Medicine at McGill University sponsored a three-day workshop, “Developing Successful Workshops,” to assist teachers in planning, conducting and evaluating them.

Description: This workshop was designed to give participants a framework for developing successful workshops and to take them through each of the planning steps. On the first day, workshop modules consisted of defining participant needs, setting appropriate objectives, matching content to objectives, and matching teaching methods to content. On the second day, participants had an opportunity to apply the steps discussed on the first day to a workshop they were planning to conduct in their own setting, and to review strategies for evaluating workshops. They worked in pairs to design (or refine) their workshop content, and then presented their plan to the larger group for feedback and discussion. The last day of the workshop emphasized facilitation skills for both interactive large-group presentations and small-group discussions, and each participant was asked to present a part of his or her own workshop to the group. Each workshop module was introduced by a brief plenary session that summarized the key issues for discussion and was supplemented by a detailed handout designed to guide workshop planning. However, most of the activities took place in small groups.

Discussion: The immediate post-workshop evaluations indicated that all of the participants rated the workshop “very useful.” The participants valued the systematic approach to workshop planning, the checklist provided, the hands-on experience, and the opportunity to work on one of their own workshops, with feedback from their peers. All of the sessions were rated highly (i.e., “very useful”), with the exception of the module on evaluating workshops. Six months after the workshop was held, a follow-up questionnaire was sent to all of the participants. Sixteen of the 18 participants responded to this questionnaire; and of these, 11 reported that they had conducted the workshops they had worked on, and three had given different workshops. The participants’ workshops had varied from two hours to a full day and had been given to health care providers and patients at local and national meetings. Topics addressed included community-oriented primary care, teaching evidence-based medicine, research design, and stress management. The participants continued to rate the McGill workshop very helpful (with an overall rating of 4.6 on a five-point scale) and felt that the most useful sessions were matching teaching methods to content, conducting interactive large-group presentations, setting appropriate objectives, and matching content to objectives. In retrospect, they particularly valued the structured framework provided during the workshop, the emphasis placed on careful planning, and the opportunity to see a workshop in action. The results of this follow-up evaluation confirmed the usefulness of a faculty development workshop on developing workshops, and dem-
onstrated that a structured approach to the design and delivery of workshops can help to improve teaching and learning. **Inquiries:** Yvonne Steinert, PhD, Department of Family Medicine, McGill University, 517 Pine Avenue West, Montreal, Quebec, H2W 1S4, Canada.

**REFERENCE**


---

**Writing “Blitzes” for Medical Educators**

**DEBORAH E. SIMPSON, PhD, CHRIS MCLAUGHLIN, AND DAVID SCHIEDERMAYER, MD, MEDICAL COLLEGE OF WISCONSIN**

**Objective:** “I didn’t go into medicine to write.” “I wasn’t an English major.” “I just don’t have time to write.” These comments, often heard among medical educators, reflect a serious problem for the advancement/promotion of medical educators and for their ability to build on each other’s work. Writing continues to be the main way we share our innovations—and failures—with our colleagues. Yet medical educators are reluctant to write. To address obstacles of time and limiting beliefs, we developed the 12-minute writing “blitz” for physician educators.

**Description:** Participants in a faculty development program must complete an education project and are encouraged to submit these projects to medical education meetings/journals. Using our writing blitz strategy, they are given explicit writing tasks and short bursts of time to complete them during our sessions. For example, in two minutes participants write the introduction to their medical education project using the following sentence-by-sentence strategy. Sentence 1: Describe the current problem/need that led you to do your project. Sentence 2: Describe the ideal state for that problem if it were solved. Sentence 3: Articulate the gap between the current problem and the ideal state. 4. State how your project/idea narrows the gap between the ideal and the current problem.

Participants then present their ideas to see if it “grabs” the group, as potential readers. Ideas are then discussed, clarified, and typically reframed to place the specific innovation into a larger context of current issues within medical education. After this reframing, each participant is then required to write for 10 additional minutes giving a detailed description of the methodology and the discussion. Because the size of most published abstracts is between 250 and 500 words, participants are exhorted to “just write” with explicit directions including: “Do not edit . . . if you can’t think of a word, leave it blank and keep writing.” The goal is to get ideas on paper, valuing for the moment quantity over quality. Participants then exchange their “abstract” with a colleague who makes general edits and returns it to the author who then takes those edits, makes corrections and forwards revisions to the session leaders for final critique and review before submission.

**Discussion:** Those who “can’t write” often are astounded at the quantity and quality of the material that emerges from these short, focused writing blitzes. We have recently pilot tested this writing blitz technique for longer projects such as literature reviews and journal articles. Session evaluations for both the abstract and the longer paper are extremely positive, and attendance at these programs is high, indicating that the technique is successful. Preliminary data on the use of this technique to write reports to submit to *Academic Medicine’s* In Progress reveal that in 1998 and 1999, approximately 80% of the workshop-drafted reports were submitted. More importantly, successful creation and submission of an actual product can change physician educators’ belief that “I just don’t have time to write.”

**Inquiries:** Deborah E. Simpson, PhD, Office of Educational Services, Medical College of Wisconsin, 8701 Watertown Plank Road, Milwaukee, WI 53226; e-mail (dsimpson@mcw.edu).

---

**A Computer “Boot Camp” for Academic Medicine Faculty**

**TATUM W. LANGFORD, MA, CHRISTOPHER B. REZNICH, PhD, AND SARAH ERWIN, MICHIGAN STATE UNIVERSITY COLLEGE OF HUMAN MEDICINE**

**Objective:** The Office of Medical Education Research and Development (OMERAD) at Michigan State University sponsors an annual faculty development seminar series dedicated to training academic physicians in essential faculty skills. Computer skills such as word processing, preparing scientific presentations, information retrieval and management, electronic communication, and bibliographic reference management are imperative to professional productivity and development. Because most academic medicine faculty never receive training in computer skills, a series of workshops was developed in 1998 based on Carroll’s minimalist design principles. Using Carroll’s principles, and the analogy to the military approach to training, the seminar series was named Computer Boot Camp.

**Description:** After a needs assessment, six topics were iden-
Learners will try to do things with the computer as soon as they feel they can; they will not “wait for the instruction.” This principle was brought home when learners at the first session began working through the self-guided manual as soon as the session began and would not attend to a demonstration of the functions they were to learn. (3) Coordinate systems and training. Successful training systems incorporate linkages between the instructional materials and the action on the screen. Liberal use of “screen shots” throughout the manual helped depict what the user’s computer screen should look like. (4) Support error recognition and recovery. All learners can be expected to make mistakes. Effective instruction must include plans for this contingency. We advised participants to become very familiar with the “undo” function. (5) Use the situation. The fine details of a real-world situation can guide the development of instruction. The “real-world” task of creating a scientific presentation, or retrieving information from the PubMed database, creates a rich set of learning stimuli and suggests the content and organization of computer instruction.

Discussion: An average of 91% of participants across all topics completed the workshop tasks and an average of 64% were continuing to use the skills when surveyed three months after the workshops. All participants reported that the organization of the workshops and training materials had been key to learning the various computer skills.

Inquiries: Christopher B. Reznich, PhD, Office of Medical Education Research and Development, College of Human Medicine, Michigan State University, A206 East Fee Hall, East Lansing, MI 48823.

Feedback Notes: A System for Feedback to Students and Residents

TIMOTHY R. SCHUM, MD, ROBERT L. KRIPPENDORF, MD, AND THE ADVANCED EDUCATION FACULTY DEVELOPMENT GROUP, MEDICAL COLLEGE OF WISCONSIN

Objective: Trainees actively request effective feedback that is timely and specific about behaviors that can be changed. Faculty claim they give feedback but also state that time constraints limit their ability to provide timely, specific feedback, especially in the ambulatory setting. We sought to develop a simplified, efficient feedback system that could be easily used in the ambulatory setting, provide frequent, high-quality feedback, and be accepted by both faculty and trainees.

Description: As part of an advanced faculty development program at the Medical College of Wisconsin, in 1999 we developed a simple feedback system. The goal of the system was to provide an easy and efficient tool—feedback notes—that could be quickly completed by the faculty while providing formative information for the trainee. The 3” × 5” carbonless feedback note was developed. It contained the trainee’s name and a reference to the encounter (patient problem); two general areas of feedback were sought, including a “well done” section and a “to improve” section; and the final portion of the form called for the faculty member’s signature, the date, and the trainee’s level.

After sessions on feedback in the faculty development program, the notes were distributed. Faculty could use them for medical students (third or fourth year), residents, or fellows in the ambulatory or inpatient setting. As an introduction for the trainees, faculty were advised to inform them that feedback would be given using a feedback note and would include strengths as well as areas to improve. These notes were completed at the time of the encounter or within the following 48 hours; the faculty members should give feedback with additional verbal input, if possible. Duplicate copies of the notes (without the trainees’ names or patient information) were collected and used for data analysis.

Discussion: Participants in an advanced faculty development program for general internal medicine and general pediatrics used the notes. The time needed for completing each note was one to two minutes. Over the initial five months, seven faculty completed 393 feedback notes. The notes were used in both ambulatory and inpatient settings. The trainees’ reactions to the notes ranged from very favorable (the majority of trainees) to angry (with one resident asking whether she could have time for rebuttal). Preliminary feedback from faculty showed general acceptance of this system and a far greater use of explicit feedback than with prior feedback systems. Faculty also indicated that these notes helped them to give focused feedback in a timely manner, even when the
trainees were no longer physically present. The convenience of being able to complete these notes after rather than during a busy clinic appeals to faculty members pressured for time. In summary, the use of these simple feedback notes led to more feedback, more specific feedback, and favorable reviews from both faculty and trainees. Formal evaluation will include a content analysis of these notes and a survey of trainees on the effectiveness of this method. After this pilot program, we anticipate expanded use of these notes in our institution.

**Inquiries:** Timothy R. Schum, MD, Downtown Health Center, 1020 North 12th Stret, Milwaukee, WI 53233; e-mail: tschum@mcw.edu.

---

**A Workshop for Junior Faculty on the Learner in Difficulty**

**Jessica Muller, PhD, and Peter Sommers, MD, University of California, San Francisco**

**Objective:** One of the most challenging problems that we face as educators is working with learners who are experiencing academic, psychological, or interpersonal problems that make them unable to perform their clinical or training responsibilities satisfactorily. For faculty and learners alike these situations can result in frustration, uncertainty, and feelings of helplessness as well as a drain on resources. To address this issue at the University of California, San Francisco, we hold a day-long workshop for junior faculty teaching in family medicine residency programs. Its purpose is to clarify the issues that come up in working with learners in difficulty, understand the problem from a systems perspective, identify strategies for intervention, and develop a framework for approaching these issues in residency programs.

**Description:** An interactional model has been proposed for working with residents in difficulty. In contrast to the commonly-held view that the “problem” resides within the learner, this model advocates examining the interaction of the identified learner with faculty and other learners within an organizational context, and proposes that the problem is best addressed by clarifying values, testing assumptions, and forming alliances that promote a collaborative approach to remediation. In 1997, as part of an ongoing faculty development program, we developed a workshop to prepare faculty in the practical application of this model to situations they commonly encounter in their educational settings. In the workshop, faculty practice this approach through experiential learning, reflection, and inquiry. Before the workshop, participants are instructed to prepare “cases”—written depictions of their encounters with learners in difficulty, including descriptions of the environment, the individuals involved, the history of the situation, and the “presenting problem.” After reviewing the cases in the large group, participants decide which cases should be used for group role-playing based on the issues of most interest to the group. After players, observers, and a consultant-adviser are selected, each case is role-played for 10–15 minutes. At that point, the whole group is invited to reflect on the experience. Faculty are encouraged to articulate their assumptions, seek multiple perspectives on the problem, examine how the problem is situated in the organization, and devise strategies for intervention. Assumptions and strategies are then tested in re-enactments of role-playing. Finally, participants develop a step-by-step framework for dealing with learners in difficulty at their own residency programs.

**Discussion:** This is an effective way to learn about and apply an interactional model to working with learners in difficulty. It allows faculty to discover issues, explore and test their own assumptions, and identify strategies experientially. It also encourages them to examine a problem from the perspectives of different individuals involved and within the context of the organization. Finally, it fosters a process of collaborative problem solving. A major challenge is moving from the “virtual” world of role-playing to the complexity of the actual situation. Additional studies are needed to explore the degree to which faculty can carry this model into their own educational practices.

**Inquiries:** Jessica H. Muller, PhD, Department of Family and Community Medicine, Box 0900, University of California, San Francisco, San Francisco, CA 94143–0900.

**REFERENCE**


---

**Chancellor’s Educational Retreat for Interdisciplinary Faculty Development in Women’s Health**

**Deborah S. Kwolek, MD, Donna G. Grigsby, MD, and Lois M. Nora, MD, JD, University of Kentucky**

**Objective:** To prepare faculty for a new multidisciplinary educational initiative in women’s health, the University of Kentucky Medical Center in 1999 held the Chancellor’s Ed-
Using Residents’ Ratings of Teaching to Assess the Effectiveness of Faculty Development

DONALD KOLLISCH, MD, SUSAN LINSEY, MA, AND JULIA E. WEISS, MS, DARTMOUTH MEDICAL SCHOOL

Objective: The primary goal of our faculty development program has been to improve the skills of family practice faculty members as teachers and scholars. The project uses residents’ assessments of the changes in faculty members’ skills over the course of the one-year fellowship to evaluate the effectiveness of the fellowship.

Description: The impact of faculty development programs has been generally reported in terms of publication productivity and retention of faculty in academia. The Faculty Development Program of the Dartmouth Medical School is designed to provide the faculty members from our three affiliated residencies with a range of skills; the primary focus is on their roles as teachers. Therefore, we decided to ask the residents themselves to help evaluate their teachers.

The major fellowship activities consist of four two-day workshops over the course of a year, led by senior faculty. These are supplemented with (1) a curriculum-development project (mentored by fellowship staff), (2) participation in quarterly video-teleconferences, (3) maintaining a “teaching journal,” and (4) reviewing videotapes of teaching encounters. The fellowship features a teaching and learning track, which focuses on learning styles, teaching techniques, evaluation, feedback, and curriculum design. Other areas of training are advising, evidence-based medicine, and teaching about managed care.

At the beginning and end of the year, the fellows are evaluated by their program director, by all of the residents in their program, and by themselves. The areas in which their skills are assessed derive from the learning tracks of the fellowship and fall into three realms: communication and teaching, interpersonal skills, and professional skills. There
are 19 questions, which are scaled from 1 (“needs help”) to 4 (“really great”).

Scores were calculated, and analyzed both item-by-item and collapsed by realm. “Pre–post” differences in the evaluations by the residents and the directors, as well as self-evaluations, were used to assess the effectiveness of the fellowship training.

Discussion: Residents and directors rated all faculty members more highly after the fellowship than before. The skills that were rated by residents and directors as improving the most were eliciting learning needs, flexibility, sharing responsibility, and advocating for residents. Interestingly, there was little overlap with the fellows’ self-ratings, which demonstrated the greatest increases in listening, willingness to learn, providing feedback, balancing service and teaching, enthusiasm in teaching, and conducting lectures.

Interpretation of our data is limited to the 16 fellows evaluated thus far; data from an additional 12 will be available in one year. Another confounding factor is that other influences besides the fellowship activities doubtless contributed to residents’ perceptions of improvements in the fellows’ teaching skills.

Nonetheless, we believe that we have developed a tool that will provide valuable program evaluation for our faculty development program, and it also can potentially be a guide for regional or national trends in faculty development. Learners’ impressions of teachers’ skills are perhaps the most important outcome of faculty development.

Inquiries: Susan Linsey, Dartmouth Medical School, Department of Community and Family Medicine, 7250 Strasenburgh, Hanover, NH 03755; e-mail: susan.c.linsey@dartmouth.edu.

The Faculty Self-efficacy Scale:
A Tool for Evaluating Faculty Development Interventions

PETER S. SOMMERS, MD, JESSICA H. MULLER, PhD, AND ELIZABETH M. OZER, PhD, UNIVERSITY OF CALIFORNIA, SAN FRANCISCO

Objective: Educators responsible for evaluating faculty development programs face a considerable challenge: how to measure the extent to which program graduates apply target skills in their academic work settings. The concept of self-efficacy, which is concerned with people’s beliefs in their capabilities to carry out tasks within relevant personal and professional domains, has been demonstrated to predict performance of those tasks in real-world situations. To help us evaluate a one-year curriculum to prepare physicians as full-time teaching faculty, we are developing an instrument to measure faculty members’ self-efficacy for performing tasks essential to their success in academic medicine. We report here on the overall structure of the instrument and its internal consistency.

Description: The Faculty Self-Efficacy Scale is designed to measure faculty physicians’ perceived self-efficacy for performing tasks within three professional role domains: (1) teaching, including teaching in clinical and classroom settings; (2) scholarship, including developing and evaluating curricula within an area of expertise and writing for publication; and (3) professional development, including planning career strategies and employing key interpersonal skills, such as collaborating and sharing feedback with colleagues, negotiating professional role boundaries, and managing conflict. The instrument consists of nine scenarios, each of which describes a common, yet challenging situation pertaining to one of the three professional role domains. Each scenario is followed by a set of concrete tasks identified by medical educators as important for effectively addressing the situation described. For example, a scenario on delivering formal presentations is followed by, “How confident are you that you can: (1) prepare a presentation focused on a few essential learning points; (2) design slides to enhance your presentation; (3) use a delivery style that keeps your audience engaged; and (4) incorporate audience participation methods in your presentation?” Faculty physicians completing the instrument are asked to rate their perceived capability to carry out each task on an 11-point scale ranging from “cannot do at all” (0) to “certain can do” (11).

To field test the Faculty Self-Efficacy Scale, we administered the instrument to 95 faculty physicians in family medicine academic units throughout California. Using data from this sample, we performed a principal-components analysis. The results indicated one large unrotated factor, which accounted for 63% of the variance. All 45 items were identified with this one factor, with factor loadings ranging from .52 to .84. Internal consistency reliability, computed using Cronbach’s alpha, was .974.

Discussion: Preliminary analyses of the Faculty Self-Efficacy Scale are promising. It appears to have good overall structure and high internal reliability. Subsequent analyses will determine whether items might be deleted to avoid redundancy and create a smaller assessment tool. We will also examine the instrument in conjunction with other quantitative and qualitative outcome measures for faculty development to determine the instrument’s convergent validity. We are hopeful that self-efficacy measures can be incorporated into experimental designs to test faculty development interventions.