This is a common question that I hear from colleagues, friends, and family. Some are skeptical about the benefits of educational development whether they understand it or not. Some are surprised to learn what educational development is. If you have had the same question, I hope you will read the following.

The Office of Educational Development is comprised of six educational consultants, two research assistants, and one budget specialist. We also hire part time employees, through external funding, to help with special projects; and we hire students part time to serve as tutors. We are educational problem-solvers with expertise in how to: organize and develop courses and instructional materials, evaluate educational programs systematically with a variety of methods, develop web-based courses, improve study and learning skills, and assess student performance through paper and pencil exams, portfolios, simulations, and other methods. We collaborate with colleagues to find solutions to problems in teaching and learning.

Last year we collaborated with ninety-nine colleagues in the four health professions colleges. The extent of the collaboration ranged from organizing and co-hosting a regional meeting to consultation on a statistical application. Below are some summary statistics on our collaborations.

- Assisted 17 faculty develop web-based courses or course material
- Assisted 19 faculty with their Teaching Scholars projects
- Assisted 12 faculty with manuscripts/presentations
- Assisted with 9 grant proposals
- Assisted in the development of 17 courses or self-instructional modules
- Consulted with 12 faculty on research design/statistics issues
- Consulted with 5 faculty on student assessment problems
- Provided evaluation expertise on 40 projects
- Coordinated tutoring for 90 students
- Provided individual counseling to 25 students on learning skills
- Provided direct instruction in classes or workshops as requested by 6 faculty
- OED faculty actively participated in 37 committees, including
  - Southern Group on Educational Affairs Host Steering Committee
  - IRB
  - 13 College of Medicine education committees representing undergraduate, graduate, and continuing education

So what we do is to help others solve educational problems. In order to survive we now are dependent upon grants and contracts as the central support services have reduced budgets several times. In the fall of 1995 no one in the office was supported by grants or contracts and state money provided our maintenance budget. Currently the equivalent of 3.5 full time positions (from our total of 8.9 full time positions) are committed to grants and contracts. All but $2,500 of the OED maintenance budget is obtained through grant funding. That doesn’t mean that you must have external funding to work with OED. It just means that OED must attend to externally funded projects as well as our state funded mission to improve the teaching and learning at UAMS.

So what we do is to help others solve educational problems. In order to survive we now are dependent upon grants and contracts and serving as consultants who help others help themselves.

Diane Heestand, Ed.D.
Director of OED
One of the major projects of the past year within the Office of Educational Development (OED) has been the creation and coordination of a proactive plan for addressing the six General Competencies of the Accreditation Council for Graduate Medical Education’s (ACGME) Outcome Project, as these competencies relate to Graduate Medical Education (GME) on the University of Arkansas for Medical Sciences (UAMS) campus. This has been accomplished with the major impetus emanating from the Associate Dean for Graduation Medical Education, Dr. Jeanne Heard, with input and direction from the residency program directors (PDs) through the Graduate Medical Education Committee (GMEC) and their Competencies subcommittee. This coordinated effort has helped prepare 20 of the 47 residency programs on campus for external accreditation site visits between 7/01/02 and 6/30/03, as well as initiate the other 27 programs into the process of meeting the competency requirements when they are next visited. The emphasis for the first group is simply to have a curricular plan in place along with potential means of evaluation.

ACGME, a consortium of accreditation bodies within GME, has fostered an educational reconceptualization of residency training, emphasizing required outcomes for competency within a professional specialty, rather than the time-honored apprenticeship model whereby graduation was simply based upon spending a certain length of time in training with practicing specialists, followed by their acknowledgement that the resident was prepared to become board certified. One major motivating factor behind this new perspective for residency training was the apparent lack of trust in the process expressed by the general public, due to questionable practices by a segment of practicing physicians. Many medical educators believed that the most direct manner in which to impact future practice was to focus on enhancing residency education.

The six core competencies required of all GME programs are:
1. Patient Care
2. Medical Knowledge
3. Practice-based Learning and Improvement
4. Interpersonal and Communications Skills
5. Professionalism
6. System-based Practice

Within each of these competencies are specific skills required to be a practicing physician within each specialty and subspecialty, many of which are similar across the spectrum of programs, but some which are markedly different. These skills can then be identified with an educational objective that can be measured, in some manner, with an appropriate evaluation tool geared toward the teaching methods employed.

ACGME views this initiative as a long-term process, with full implementation within the accreditation process approximately 10 years away.

OED and Dr. Heard conducted a needs assessment of residency programs in October 2001. This assessment demonstrated the necessity for assistance to PDs in the development of educational objectives, refinement of teaching methods, and the development of new evaluation and assessment devices across the range of residency programs on campus. To accomplish this, five program initiatives were instituted. These were:
- Quarterly Program Directors’ meetings to share ideas on the competencies;
- Monthly “Brown Bag Seminars” to review competencies and evaluation methods;
- Individual consultations with all 20 PDs to organize their work and assuage anxieties, as well as ongoing consultations with interested PDs to refine their educational efforts;
- A Competency Workshop to provide protected time for the PDs to focus on their work; and
- Development of generic Patient Satisfaction and 360-degree evaluation systems for institution-wide use.

OED staff has presented six monthly Brown Bag Seminars focusing on specific methods of assessment and evaluation outlined within the ACGME Outcome Project purview. During the session considering the competency Practice-Based Learning and Improvement, discussion focused upon the use of quality assurance projects, specifically the Continual Quality Improvement (CQI) projects that many PDs are familiar with. Other topics covered during the monthly meetings were 1) checklists and their development, 2) Mini-CEX (short clinical examination evaluations), 3) oral exams, 4) chart stimulated recall (CSR), 5) Standardized Patients (SP), 6) Objective Structured Clinical Exams (OSCE), 7) Patient Satisfaction Surveys, and 8) 360-degree global evaluations. While these were presented in conjunction with one competency, care was taken to demonstrate that many were useful in evaluating multiple competencies. These topics helped stimulate PDs awareness of what evaluation techniques might best fit their programs in terms of teaching methods already employed or ones they might choose to begin using. They also assisted OED staff in the next phase of assistance.

In this phase, consultations with individual PDs were conducted. The initial round of consults was aimed at ensuring that every program coming under review between July 1, 2002 and June 30, 2003 had been contacted at least once. For some, this was the only face-to-face contact; for others, this initiated periodic meetings provided to assist the PDs as they saw
Helping Students Bridge the Gap between Preprofessional Programs and UAMS Courses

There are many reasons why students have trouble making the transition from preprofessional to UAMS courses. UAMS courses are usually more demanding in terms of both the amount of content and type of learning (more application and less rote memory). Often there are gaps between the outcomes of preprofessional courses and what students are expected to know and be able to do when they begin UAMS courses. Students must remember information longer and apply it; memorizing, regurgitating and forgetting, doesn’t work here. Regardless of the reason why students encounter academic difficulty, it usually stems from the fact that they have never developed appropriate learning or metacognitive skills. One thing OED does is to help students develop these skills.

Translated literally, metacognition means monitoring thinking or understanding. However before students can monitor what they know and don’t know, they need to be able to do two things. The first is to understand the types of learning tasks required in UAMS courses. To illustrate what understanding learning tasks means, before students’ first gross anatomy exam, some think the only information they need to know about muscles is origin, insertion, innervation and blood supply. After the first exam, they understand the learning task implied in the axiom, ‘You really don’t know a structure until you know the adjacent structures.’ The second thing students must be able to do before they can monitor their understanding is develop an overview of important concepts related to a topic so they know ‘where they are’ in terms of learning material. OED’s role in helping students learn centers around helping them to understand the types of learning tasks required in their courses and develop overviews instead of merely memorizing facts.

OED faculty who help students develop learning skills must have a good understanding of the types of learning tasks expected of students in UAMS courses. We do this by sitting in on lectures or parts of courses. Sometimes we assume the role of a student and actually try to learn material, a VERY humbling experience! Many years of experience sitting in on lectures and reviewing course material has provided OED faculty with considerable insight about learning tasks expected of students. Moreover lecture comments such as this one are often the source of some of our most often-repeated suggestions for organizing information: ‘Physiological processes often consist of several smaller ones, each of which is characterized by three things: something that triggers it, a product, and something that ends it’.

OED talks to groups of students during orientation sessions or meets with individual or small groups of students at any time during the semester. When we’re asked to talk to groups of entering students about studying and learning at UAMS, the first thing we do is talk with departmental faculty about coursework and types of course material / learning tasks which historically have been difficult for students. We get materials such as the course syllabus, textbook and sample test questions. The focus of these sessions is always on helping students do three things. 1) Understand the nature of learning tasks required in their courses, 2) Use appropriate study strategies for specific types of learning tasks, and 3) Understand any preferences they may have for condensing and organizing information: Are they visual or kinesthetic learners or do they prefer to read and outline material?

Sometimes faculty ask us to meet with a student, but students can and do often self-refer at almost anytime during the semester. We hear from some students who get a wake-up call after their first UAMS quiz; unfortunately, we don’t hear from others until just before final exams. We prepare for individual or small groups of students in much the same way as we prepare for orientation sessions. We get course materials currently being covered in lectures and sample test questions from instructors. Not only do these questions help students (and us) identify types of learning tasks, they also often provide considerable insight about ways of organizing information to facilitate retention. Unfortunately many students have access to a lot of test questions; questions that they often use inappropriately, either by trying to memorize correct answers or by not using them until the eleventh hour, when it’s too late to review information they don’t know. The sample question in Fig. 1 illustrates why test items that are comparable in difficulty to those students will actually encounter on tests, are so useful. Before seeing a question like the one in Fig. 1, some students may think that ‘knowing’ lung pressures means being able to define the different types of pressures or write equations showing relation-

6. Which of the following is true during inspiration?

| A | Intrapleural pressure is positive |
| B | The volume in the lungs is less than the functional residual capacity (FRC) |
| C | Alveolar pressure equals atmospheric pressure |
| D | Alveolar pressure is higher than atmospheric pressure |
| E | Intrapleural pressure is more negative than it is during expiration |

Inspiration: Pressures (+ or -) | Expiration: Pressures (+ or -)
---|---
\( P_{tp} \) | \( P_{tp} \)
\( P_{tp} \) | \( P_{tp} \)
\( P_{tp} \) | \( P_{tp} \)

Fig. 1 - Sample test question

Fig. 2 - Study aid based on question in Fig. 1

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MSWord and WebCT

Do you have MSWord documents already prepared for your courses? There is no need to recreate those documents in FrontPage or Netscape Navigator. All you have to do is make certain you have the complete installation of MS Word and you’re on your way.

The standard installation of MSWord does not include “publish as a webpage”. Therefore, a custom installation must be done. To find out if you have the complete MSWord program:
- Go to File
- Choose the arrows at the bottom to expand the menu
- Look for “Save as Web Page” which will appear below “Save” and “Save as”
- If this is in dark text like the rest of the menu, you have what you need.
- If it is grayed out, you need to call the helpdesk to get the complete installation.

When you “Save as Web Page” you are converting the file to html. Be sure to name the file with a name that contains no spaces or punctuation.

Allowing WebCT to Create Multiple Versions of Quizzes

Did you know that WebCT can assign questions randomly as students access the quiz? You can make your entire quiz a “question set.”

For example, there are 100 questions on the quiz and you want students to get any 25 questions. So you would place all 100 questions in one question set and tell WebCT to give each student 25.

A more pedagogically sound method is to have question sets based on competencies. With this type of grouping, each student is assured of receiving a question pertaining to each competency. Also, you can build a larger and larger question database by adding questions each semester as you have time.

Adding Alternates to Quiz Questions

Once you have a quiz built, you can add alternate questions to create multiple versions of your test. These alternate questions may be added as you initially construct your quiz by selecting “Add question sets” or after you have initially constructed your quiz by selecting a particular question and then selecting “Add question alternates.”

Titles for Quiz Questions

Make a plan for naming your quiz questions so that they can work to your advantage.

Numbers:
If you have a question database on paper or stored outside of WebCT and the question associated with the numbers is meaningful, then you may choose to consecutively number your questions. So that the title (number) matches the number in your publisher resources or the numbers in your stored question database.

Topics:
A more useful title, in my opinion, is using a topic as a title. If you use topics as titles for your questions, you will know at a glance what your quiz contains. When you are ready to add questions alternates, letters or numbers may be used to signify different questions covering the same topics. For example, Red Blood Cells can become Red Blood Cells1, Red Blood Cells2, Red Blood Cells3.

Robin Smith, Ph.D.

UAMS Involved in Southern Group on Educational Affairs

UAMS was well represented at the Southern Group on Educational Affairs (SGEA) annual meeting this past March in Charleston, South Carolina. SGEA is a regional educational group associated with the Association of American Medical Colleges. Last year UAMS hosted the meeting in Little Rock. The strong involvement of our campus carried forward to this year’s meeting as a number of faculty made presentations, presented posters, or fulfilled leadership roles. More specifically, here is a list of the activities by faculty at UAMS:

<table>
<thead>
<tr>
<th>Total Posters presented: 31</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Posters from UAMS: 2</td>
</tr>
<tr>
<td>1. Use of Computer-Assisted Learning Module to Achieve ACGME Competencies in Orthopaedic Foot and Ankle Surgery</td>
</tr>
<tr>
<td>Ruth Thomas, MD and Ruth Allen, PhD</td>
</tr>
<tr>
<td>2. Medical Student Empathy Changes: Association with Specialty Choices</td>
</tr>
<tr>
<td>Laurie Barber, MD, James Clardy, MD, Elton Cleveland, MD, Mildred Savidge, PhD, Patricia O’Sullivan, EdD, Bruce Newton, PhD</td>
</tr>
</tbody>
</table>

| Total Small Group Discussions held: 6 |
| Small Group Discussions from UAMS: 1 |
| General Competencies – The Role of the GME Committee |
| Jeanne Heard, MD, PhD, Lois Bready, MD, Margaret Uthman, MD |

| Total Roundtable Discussions: 15 |
| Roundtable Discussions from UAMS: 2 |
| 1. Evolving the Idyllic Physician-Patient Relationship in the 21st Century |

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Helping Students, Continued from Page 3

ships among them. Seeing this type of question makes students aware of another type of learning task associated with pressures: knowing whether each type of pressure is positive or negative during inspiration and expiration. Questions such as that in Fig. 1 are also important because they provide clues about ways of organizing study materials to capture and rehearse important information (see Fig. 2).

Unfortunately there is little evidence that ‘one-shot’ attempts such as orientation and individual sessions are successful. Since many students who eventually encounter difficulty have no prior history of academic problems, admonitions at orientation (from faculty and OED) that UAMS coursework will differ from preprofessional courses, generally fall on deaf ears. Students who do find themselves in academic difficulty are usually so embarrassed that they don’t try to get help until they’ve dug themselves into such a deep hole that it’s almost impossible to get out. As a result, individual ‘learning skills’ sessions generally are not successful either. To address this need, OED is developing web-based metacognitive skills materials based on actual course content. Our goal — with faculty help — is to develop these types of materials for many concepts that are historically difficult for UAMS students. A prototype of these materials, based on concepts in cardiac physiology, is now available. For a look at these materials, point your browser to http://webct.uams.edu. Both the user name and password for these materials is reviewer. (Note WebCT user names and passwords are case-sensitive, so be sure to type ‘reviewer’ in all lower case.) When you click on the course ‘Learning Skills,’ select the icon ‘Metacognitive Skills.’ Let us know (GarrettJudithE@uams.edu) if you’re interested in collaborating in the development of similar materials for your course.

Judy Garrett, Ph.D.

1Dr. Charles Born, COP physiology
best, typically for assistance in writing objectives or for determining where an objective was likely to be taught. As an adjunct to these, the Competency Workshop brought many programs together in one place to share ideas and provided protected time needed for accomplishing at least the initial phase of planning – completion of a few objectives under each competency, determining where and how these were taught, and preliminarily determining evaluation methods to be used. Once PDs had a technique for confronting the dilemma, they were much better able to work on their own. These two initiatives, in tandem, have offered the program directors, along with their long and untiring work, the opportunity to be well prepared for their next Residency Review Committee (RRC) site visit.

These initiatives are on-going, with Brown Bag Seminars planned for the fall, as well as a quick round of seminars being offered at Arkansas Children’s Hospital during May and June. The next round of consultations with programs being visited after July 1, 2003 has now begun. These programs will not only be expected to have a “plan” in place, but to have implemented at least some portions of their plan. This implementation process also includes the development and validation of instruments for measuring resident competency. To this end, another on-going initiative taken on this year was development of a Patient Satisfaction Survey, as well as an institutional 360° Global Evaluation instrument that looks at a range of domains within the residency training circle of responsibility. With the assistance of a Residents committee, items from a variety of surveys were considered and incorporated into questions covering topics addressed by the competencies. After consideration of these inputs, it was felt that one patient survey in particular, the American Board of Internal Medicine’s (ABIM) Physician/Patient Communications Survey, validated with Internal Medicine residency programs at UCLA and the University of Washington in the late 1980s, offered an instrument with excellent psychometrics, as well as being used currently by ABIM for evaluating practicing physicians. Additionally, this questionnaire was utilized by researchers and the results published in an article as recent as January of this year in *Academic Medicine*. This survey, along with the Residents suggestions, was then incorporated into multiple instruments seeking input from groups involved in Residents day to day activities. This 360° Global Evaluation is currently under review by the Graduate Education Committee’s Competencies Subcommittee, and pilot tests of both the Patient Satisfaction Survey and the 360° evaluation are planned for this fall. Other instruments needed by the PDs will be developed, tested and validated as the need becomes apparent.

The emphasis on GME and the competencies has involved many of us within OED, and it will continue to grow. Currently, plans are underway for the development of Systems-Based Practice modules using Web-CT for use by all residency programs within the institution. During the initial phase, they are being supported by funds from Geriatrics and this residency program will receive the most direct attention. The intent is to develop these with enough flexibility so they can be modified for other programs’ needs. In the end, most of us within OED will be either directly or indirectly involved with the evolution of the ACGME Outcomes Project and this dynamic approach to changing the face of medical education within the institution and within the nation.

Mike Petty, Ph.D.