



Project Introduces Students to Helpful Resources

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Many of my students wait until they are in academic trouble to seek help. By then, they are often in too deep to be retrieved. At the beginning of the semester, I've tried to encourage students to know what support services are available to them. But often this advice is either completely ignored or stored for use when it's too late. How could I convince students to heed my advice?

My concern prompted the development of something I call the Resource Hunt. In putting this project together, I focused on resources that could help all students in my class. The list included me, our math tutoring lab, a textbook publisher website, and Blackboard, our course management system. I created a task to highlight each of these resources.

I confess that I got serious about this project when I was going to have to miss class to attend a professional meeting. I don't feel right about canceling class, and even though colleagues agreed to cover, I've never found that works particularly well. I needed a substantive, beneficial project that students could complete on their own.

During the class meeting prior to my absence, I distributed the project sheet. The instructions read: The activities in this project are designed to introduce you to some resources that you may find helpful as you begin your study of calculus. All activities must be completed by the time indicated.

Task 1. Locate the math tutoring lab. Give the building name and room number, then copy the schedule on the back of this page. Please have one of the tutors sign this statement.

"I verify that _____ successfully located the math tutoring lab."

Task 2. There is an excellent website that supports our textbook. The site has many student resources including chapter quizzes. Find and go to the website listed in your textbook. Take the practice test for Chapter 1. Submit your results; then follow the directions for having the results forwarded to your instructor. Your project grade will not reflect your score on this quiz, merely that you completed the quiz on or before Jan. 30.

Task 3. While at the website, locate the section on chapter summaries. Go to the Chapter 1 summary. Click on the first objective under 1.3 and print a copy of the objective. Bring the printed copy with you to class on Friday, Jan. 31.

Task 4. Another helpful source is your instructor. Refer to your syllabus to find the location of my office. Visit my office before Jan. 30 and sign the "signature" sheet that is posted on the bulletin board

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A Conference for Teaching Professors

This is exciting news! Magna Publications, *The Teaching Professor's* publisher, is sponsoring a national conference for the newsletter's subscribers and other interested teaching advocates. The planning process has gotten underway and at this time we can tell you the conference will be a two-and-half-day event in late May 2004 (depending on hotel availability) in the Philadelphia area.

We envision a conference that focuses on key teaching-learning issues — maintaining vitality across the years, getting focused on what learning really means, making the connection between theories of learning and our classroom behaviors, the sensible use of technology, and teaching as scholarly work. We'd like to make mid-career faculty a special focus of the conference because so much of the burden of teaching advocacy falls on the shoulders of those of us who've been around, have tenure, and understand how important those daily classroom encounters are. Those responsible for mentoring new faculty or who manage faculty teaching improvement centers will find the conference especially helpful. If we have a covert

agenda, it's to celebrate who we are and what we do.

The conference will blend invited presentations with those proposed by attendees, mostly featuring faculty presenters. We envision a working conference that will engage us over an agenda that we can take from the conference back to our home institutions, and then refine and enhance when we next reconvene. We plan to bring publishers and associations to the event so that you can meet and interact with many who are working with you and us to advance teaching agendas.

We have appointed a conference

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Submissions to *The Teaching Professor* are welcome. When submitting, please keep these guidelines in mind:

- We are interested in a wide range of teaching-learning topics.
- We are interested in innovative strategies, techniques, and approaches that facilitate learning and in reflective analyses of educational issues of concern.
- Write with the understanding that your audience includes faculty in a wide variety of disciplines and in a number of different institutional settings; i.e., what you describe must be relevant to a significant proportion of our audience.
- Write directly to the audience, remembering that this is a newsLETTER.
- Keep the article short; generally between 2 and 3 double-spaced pages.
- If you'd like some initial feedback on a topic you're considering, you're welcome to share it electronically with the editor.

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An Integrated Approach to Teaching and Learning Innovations

“Full and effective use of teaching and learning innovations still has a long way to go. And it is far less likely that any one approach — whether active, collaborative, service, technology-enhanced, or student-centered — will prove better than a holistic approach that looks at teaching and learning from an integrated perspective,” observes Sandra Poindexter (reference below, p. 26). The holistic approach she proposes involves adding innovations in small increments that capitalize on their synergy.

It's an interesting premise and one at odds with how change process typically works in higher education. Frequently, innovations are not thought about as they might build upon each other. Rather, even though faculty may have a favorite — team work, problem-based learning, technology — they still select. Whatever they use, the combination is not used in any systematic way with a clear understanding of how the parts work together — if they do.

“It is only when the whole environment is considered, and multiple tools are used at appropriate times, that higher levels of sustained learning can be achieved.” (p. 30)

How do we move faculty to this more integrated, holistic way of thinking about innovation? Poindexter recommends training, but not the tried-and-true “basic skills” faculty development workshop. The needed training must be about ways of integrating multiple strategies for teaching and learning. Technology is an example of

how tools must be “woven” into a larger instructional picture.

Poindexter says that faculty must be rewarded for their innovative efforts. Data documents how little faculty perceptions of reward have changed. In 1988, 42 percent agreed or strongly agreed that research was rewarded more than teaching. In 1999, that percentage had decreased but only to 39 percent. To further make the case, she includes statistics that 74 percent of institutions have technology resource centers, 43 percent plan to integrate instructional technology into the curriculum, and 80 percent support faculty who are working to incorporate technology. But only 18 percent reward the use of instructional technology in their evaluation systems. “Teaching-oriented faculty hold the keys to increased student retention and better learning outcomes. If provided the right incentives, they could seriously invest in learning issues.” (p. 29)

Even if the rewards aren't to be increased, at least risks should be reduced. Innovative faculty should not be penalized when their student ratings dip as they work on implementation issues. There should be people with whom faculty can discuss problems as they emerge, receiving guidance and support.

Reference: Poindexter, S. (January-February 2002). For holistic learning. *Change*, 25-30. 📌

CONFERENCE FROM PAGE 1

bring *The Teaching Professor* community together to celebrate our work on behalf of students and learning.

planning committee to work with us to design an event that will provide you with a substantive, practical, and inspiring professional development opportunity.

As *The Teaching Professor's* first and only editor, I feel a special kinship with so many of you who have so faithfully supported the newsletter with your articles, feedback, and continued readership. It would be a special thrill to meet you in person and to

As the details are finalized, you can expect to find more information about the conference enclosed with your copies of the newsletter. There will be a call for presentations, and I hope that you will consider sharing in person some of the good ideas and insights that have appeared in the newsletter (or would have appeared had we more space). Stay tuned for further details. 📌

Waves of Change: Stages of Technology Adoption

Begin by differentiating between the use of technology and the presence of innovation in classrooms. “Technology is not synonymous with innovation; it only enables innovation given the right environment and openness to possibilities.” (p. 64)

With that in mind, consider the kinds and levels of change that can occur as a result of the infusion of technology into a classroom. Richard L. Celsi and Mary Wolfinbarger (reference below) identify and discuss three “waves” of change that typify the stages of technology adoption by faculty.

Wave 1: Technology as Support “In teaching, computer technology initially performs behind-the-scenes support functions such as word processing of lectures and tests, spreadsheets to record grades, and data storage.” (p. 65) It is true that these technology innovations facilitate teaching but they do not significantly change what happens in the classroom. They are likely part of a series of continuous innovations undertaken as part of an ongoing professional development effort.

Wave 2: Mirroring In this wave, technology “mirrors” or replicates an instructional function performed previously without the technology. PowerPoint being used in lieu of transparencies for overhead projection illustrates the kind of change occurring at this level. At this stage the

change is more significant and it involves students more directly. However, “there is still little significant behavioral or structural change in the classroom or classroom outcomes.” (p. 65) Improvements here are in efficiency and elaboration — so the syllabus goes online because there is less paper to handle and greater accessibility for students. But this is still not change at the most important level. “Until PowerPoint is used in some unique way, it remains a wonderful yet incremental change in the classroom.” (p.66)

Wave 3: Discontinuous Innovation These authors advocate for the third level of change. “The full potential of technology remains largely unrealized until further content and behavioral change evolves as a function of use and experimentation.” (p. 66) In other words, the real impact of technology is felt when the technology interacts with individuals changing their behavior and/or changing the technology. Change at this level may still involve PowerPoint, for example, but now presentations are infused with online materials and technologies. “This kind of incremental change ultimately creates a new media interaction where presentation tools merge with performance and distance-learning tools creating a new classroom experience well beyond mirroring.” (p. 68)

There is much more information in this

thoughtful analysis of change, innovation, and technology. However, we conclude with a critical and pointed quote from the article that discusses what needs to change and why.

The classroom, the most identifiable tangible product of the university, has changed little since its inception. As the main stage of the university where ideas are exchanged and bartered, it is threatened by a rapidly changing environment, pluralistic competition, and inertia. Times have changed, but more critically, rates of change have accelerated, and in many instances the academy seems out of pace and the classroom anachronistic. Today, a university that sees itself as an on-campus classroom service provider is clearly myopic and if not slated for obsolescence, then surely for competition from commercial training vendors and niche academic programs. Universities not only must view themselves as being in the education business but also must reassess their missions and specific roles in education. And that has to begin at the fundamental unit of analysis — the classroom.” (p. 69)

Reference: Celsi, R. L. and Wolfinbarger, M. (April 2002). Discontinuous classroom innovation: Waves of change for marketing education. *Journal of Marketing Education*, 24 (1), 64-72. 📌

RESOURCE HUNT

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by my office door.

Task 5. Grades for our class will be kept on Blackboard. Go to (web address) and follow the information to log in to the system. Go to our class and check the “ghost” grade recorded for your Chapter 1 exam. Write the grade in the space below.

The Resource Hunt proved to be very successful. In completing Task 1, students not only located the math lab and copied the schedule, but they also met one of the

math tutors who made the students feel welcome and encouraged return visits. Tasks 2 and 3 demonstrated the usefulness of the publisher’s website. Students were both surprised and excited to find the sample problems, chapter summaries, class notes, etc. available to assist them. The quiz allowed me to get a quick “pre-test” for Chapter 1 skills and also demonstrated a way that students could self-assess throughout the semester. Since students had to e-mail the quiz results to me, a communication link between instructor and student was established. In addition, the quiz problems provided a nice intro-

duction to the chapter sections. Task 4 and Task 5 provided the assurance that my students could locate me and also access the grades and assignments that would be posted on Blackboard.

What started out as a possible “wasted” day turned out to be one of the most productive. I attended the conference knowing that I had provided a worthwhile outside assignment. But once I returned and saw how well it worked, I decided to use the Resource Hunt even when I don’t miss class. 📌

Blended Courses: A New Twist on Team Teaching

Faculty know the benefits of team teaching — the collaboration with a colleague that usually results in updated course designs and better teaching, the different perspectives that enable students to see content in more than one way, the sharing of teaching tasks that results in everything being done more effectively, and more. But little team teaching occurs in higher education. Yes, there are administrative barriers associated with cost and the calculation of teaching load, but teachers themselves are often reluctant to participate. Co-delivering a course where colleagues truly collaborate on all aspects of the course is labor intensive. With two

people sharing the tasks, it should be less work but in fact it's more, especially the first time through.

But perhaps we aim for too much. Two law school professors (reference below) team teach ten class sessions — actually they blend those sessions from two classes that they each teach separately. The same cohort of students takes both courses. During the blended sessions, the students meet with both professors for the two periods. The two courses are scheduled one right after the other.

These professors have two objectives that they try to accomplish during these ten class periods. They want “to help

students bridge the curricular divide” between the two courses, and to model collaborative skills for their students.

In this case, the collaboration works well because the students are taking both courses at the same time. Thanks to learning community and linked course programs, it is now fairly easy to schedule the same cohort of students in two courses. However, it would be possible to collaborate in courses that are sequential in which the instructor of the first course might do a return engagement in the second course at a point when the key content from the

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Contract Grading Options Reveal Level of Student Involvement

If given a choice of contract grading options, would students choose options that require more involvement with course content and colleagues? That and related questions were posed by a group of faculty teaching a large (average class size 110), entry-level public relations course at a research university.

At the beginning of this course, students selected one of four contract options:

- 1) tests only (two exams and a final), each worth one-third of the grade
- 2) tests plus attendance, each exam worth 30 percent and attendance (not missing more than three times) 10 percent
- 3) tests plus project (where a 5-7 students developed and presented solutions to a problem of a hypothetical client), with tests and the project each worth one-quarter of the grade
- 4) tests plus attendance plus project with tests and the project each worth 22.5 percent of the grade and attendance 10 percent.

Option 1 was considered to be the least involved and option 4 the most involved.

How many students would you guess selected each option?

- 58 percent selected Option 2
- 19 percent selected Option 4
- 13 percent selected Option 1

- 10 percent selected Option 3.

Did students who selected the involved options like them more than those who picked the less involved ones? It didn't matter which option the students chose — they liked what they selected. The overall average on a 5-point scale, with 1 being “not like at all” and 5 being “like very much” was 4.67. The key insight here is how favorably students respond to being able to make choices about learning.

What reasons did students give for selecting one option over another? Almost half of the students who selected the attendance option did so because they wanted a reward for attendance. About a third of that group indicated they didn't want to do a final project. A bit more than 40 percent of the students who did select the project option said they did so because of the practical public relations experience it provided. However, 36 percent reported choosing the option because they didn't want their grade determined solely by exam scores. Interestingly, 77 percent of the students said at the end of the course, if they had to choose again, they would stick with their same option.

Was there a relationship between the option students chose and their test scores? No, there was no statistically significant correlation. However, there was a

statistically significant relationship between the option selected and final course grade. Students who selected Option 1 did worse with a mean grade point average of 2.72, and students who selection Option 4 did best with a mean grade point average of 3.30.

Which option did the public relations majors or those concentrating in this area select? Only about 29 percent of the total sample selected the more involved Options (3 and 4), but 38 percent of the public relations majors did choose one of these project options.

“We were encouraged that most students, to some degree, take at least some proactive steps toward class involvement, as evidenced by the fact that only 13 percent chose Option 1, the least involved option. However, we were discouraged that more than 70 percent of students eschew the potentially valuable and stimulating experience inherent in a final project.” (p. 15)

Reference: Benigni, V. L, Lariscy, R. A. W. and Tinkham, S. F. (Winter, 2002). To evolve is to involve: Student choice in introduction to public relations classes. *Journalism and Mass Communication Educator*, 56 (4), 6-18. ♥

Students Formulating Their Own Exam Questions

By Robert M. Gassen
Pueblo Community College, Colo.

I've always known that formulating good questions is the key to getting good answers. But I understand this in a new way now as a result of an experience I had last year in my humanities courses. I decided to work for greater involvement by allowing students to construct their own essay exams as a class project. This assignment resulted in a greater sense of ownership for the course at the same time it forced students to identify the most important ideas in the content and to formulate them as clear, open-ended questions.

Creating essay exam questions requires students to examine content carefully. In these courses, each student contributed one question prior to each exam using the following criteria:

- 1) The question must be sufficiently broad to cover an important concept but not so broad that a student would be unable to answer it thoroughly in one-half to one page, using specific supporting details.
- 2) The question must concern an important figure, issue, or concept, as opposed to focusing on details contained in these

courses that surveyed considerable material.

- 3) The question must be open-ended, allowing students to interpret, extrapolate, and criticize.

Since these were small courses, I was able to write each student question on the board. I asked students to critique them in terms of the criteria. In some cases, students debated the relative importance of an issue and the wording of a question. The students discovered that some of the best questions were simple and direct. After grappling with a variety of issues in the Christianity unit, my students settled on the following question, which elicited a variety of answers on the exam: "Why were the Christians successful in spreading their religion?"

I acted as moderator, although sometimes I would make suggestions for revising a particular question. A few of my most confident and articulate students would reject some of my suggestions, offering instead their own changes in ideas and wording. I did not object to the student changes. They would have to live with whatever exam they created.

At the end of this critique session, students voted on the questions. The four to

six questions that received the most votes were included on the exam. Some of these exams were written in class, and others were done as take home assignments.

Allowing students to construct their own exams has several advantages. First, in the process of thinking about, critiquing, and revising the questions, students actually review course material. Second, these kinds of questions cannot be formulated without critical thinking. Third, the exercise teaches students the importance of asking the right question. And finally, students take control of their own exams and at least to some extent, the direction of the course.

Occasionally a question is so good that it elicits a variety of creative, intelligent responses from students and also provides the instructor with a new perspective on an old and familiar issue or work of art. This happened to me in my introduction to literature course where students asked and answered a fresh question on Oedipus Rex: Oedipus grapples with one of the most important questions in western civilization: Who am I? A good course enables students and instructors to come closer to answering this question. ●

BLENDING COURSES

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first course is being elaborated or applied. It is useful to think about team teaching across shorter time periods.

This article is also useful for the honest way these instructors describe how they worked together. They point out that their "personalities and background differ in ways that quickly become apparent to our students." One of them "comes across as a highly organized button-down kind of guy," while the other "is a more spontaneous, gregarious sort." (p. 262) "We have developed ground rules to help us come across as a team. In each class session, we regularly alternate taking the lead, so neither of us dominates any session. While

one takes the lead, the other stays alert to interject appropriate questions and comments. We share responsibility for responding to student questions and comments." (p. 266) Sometimes the teachers will both take a crack at answering the same question because students have told them that when they want something clarified, it is useful to hear the explanation phrased differently.

"We cannot overemphasize the importance of advance preparation to ensure that in every blended class session both teachers understand their own responsibility in that session, and there are no unexplained inconsistencies in what they say." (p. 270) They explain that students are fine when the two of them disagree over some gray area, but that students get very frustrated

when they think they are getting two different answers to a question that should only have one answer. Relatedly, they have learned that they must be very clear with students as to who will test over the material covered in these shared class sessions. They take turns doing the testing of the shared sessions; in one class one year and the other class the next year.

The teachers culminate this series of team-taught classes with a session where they argue a case before the students, and let the students decide who has won the case. Students thoroughly enjoy this role reversal.

They have experienced one unexpected benefit — "Joint teaching has reminded us how hard it is to work with someone else,

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BOOK REVIEW: NEW AND NOTEWORTHY

Evaluating and Improving Undergraduate Teaching in Science, Technology, Engineering, and Mathematics

By the Committee on Recognizing, Evaluating, Rewarding, and Developing Excellence in Teaching of Undergraduate Science, Mathematics, Engineering, and Technology, Marye Anne Fox and Norman Hackerman, Editors

The Book in a Nutshell: Two items up front: the title makes it sound as though the book is only of interest to those in the identified fields. Not so. The book is relevant and useful to all faculty. Second, it's authored by a committee and likely to be boring as all get out. Also not so. It is a report published by the National Research Council, very well written, clearly organized, and full of absolutely first-rate information and resources.

Beyond those basics, the very existence of a book/report on this topic by a prestigious research organization should be a source of encouragement and optimism to those of us who sometimes tire waiting for recognition and reward to come to teaching. Take note of the opening paragraphs in the executive summary:

"This report recommends a set of strategies to evaluate undergraduate teaching and learning in science, technology, engineering, and mathematics (STEM). It is based on a study conducted by a National Research Council (NRC) committee charged with synthesizing relevant research in pedagogy and practice as a basis for developing resources to help postsecondary STEM faculty and administrators evaluate and reward effective teaching. . . . The committee's principal goal was to determine whether fair and objective methods exist for the evaluation of teaching and learning, and if so, how such methods could be used as a basis for the professional advancement of faculty. The committee found that many such methods exist, and that their utility deserves wider appreciation and application in the evaluation of both individuals and departments." (p. 1)

Among a series of overall recommendations are the following:

- 1) Teaching effectiveness should be judged by the quality and extent of student learning.
- 2) Scholarly activities that focus on improving teaching and learning should be recognized and rewarded as a bona fide scholarly endeavor.
- 3) Faculty should accept the obligation to improve their teaching skills as part of their personal commitment to professional excellence.

In addition to other overall recommendations, the report suggests actions that presidents, deans, department heads, peer evaluators, granting agencies, research sponsors, and professional societies should take in support of teaching and learning.

In addition to that sweet music, the report contains two main sections. The first offers a concise and accurate distillation of what is known about teaching and learning and its improvement, the culture of research versus that of teaching, and evaluation methods and processes. In the second section what is known is applied, focusing on evaluation. Here the recommendations are fleshed out. For example, "Valid assessment of teaching should not rely only on student evaluations, but should include peer reviews and teaching portfolios used for promotion, tenure, and post-tenure review. Such assessments should be designed to provide fair and objective information to aid faculty in the improvement of their teaching. Building consensus among faculty, providing necessary resources, and relying on the best available research on teaching, learning, and measurement are critical for this approach to evaluation." (p. 119)

And finally the report contains appendices that include a nice sampling of student rating forms, questionnaires to assess student learning, and a range of questions for faculty conducting peer reviews.

Who Should Read This Book: Just about everybody — faculty in all disciplines and administrators all the way from department heads to presidents, plus

those in professional associations and funding agencies. It is a truly outstanding resource.

Ordering Information: Find ordering information at this website: www.nap.edu. Once there, use the search box and key in the title of the report. Information about different ways to order is there. The report is \$36.00 (plus shipping and handling) and 215 pages long.

A Bit from the Book: From one of the forms, here are five key questions peer reviewers should consider when evaluating the teaching of colleagues:

- 1) What is the quality of materials used in teaching?
- 2) What kind of intellectual tasks were set by the teacher for the students (or did the teacher succeed in getting students to set for themselves), and how did the students perform?
- 3) How knowledgeable is this faculty member in subjects taught?
- 4) Has this faculty member assumed responsibilities related to the department's or university's teaching mission?
- 5) To what extent is this faculty member trying to achieve excellence in teaching?

The form also directs reviewers to materials and actions they might consider in answering the questions and on what criteria those materials and actions might be assessed. 🍎

BLENDING COURSES

FROM PAGE 5

but how many real rewards come from working with others. We need that reminder because being a law school teacher [substitute your discipline] is such a solitary pursuit. We need to retain and develop our collaboration skills in order to help our students develop theirs." (p. 268)

Reference: Seamon, R. H. and Spitz, S. A. (March/June 2002). Joint teaching with a colleague, for just a week or two. *Journal of Legal Education*, 52 (1 & 2), 258-271. 🍎