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NSSE Data Available

The National Survey of Student Engagement measures how much undergraduate students are engaged in activities – both inside and outside class – that promote learning. ISU, one of the original participants in the NSSE, has adopted five NSSE benchmarks as a way to assess teaching and learning.

This semester, CELT will highlight these benchmarks, which have been incorporated into the university's 2005-10 strategic plan, and offer specific suggestions for teaching to enhance student engagement. Corly Brooke, CELT director, recently gave a presentation to President's Council regarding the NSSE. See the presentation slides, at <http://www.celt.iastate.edu/teaching/NSSE2005.html>.

Teaching at ISU

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Pick-a-Prof Aims to Aid Faculty, Students

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Journalism and Mass Communication
and Susan Yager, Associate Director, CELT

Many instructors are aware of Internet sites that rate professors' classes and teaching effectiveness. National sites such as StudentsReview.com and RateMyProfessors.com are very popular, but their anonymous responses can sting. Further, many faculty believe, their use of such details as smiling or frowning faces and red-pepper icons trivialize teaching and are demeaning.

Nonetheless, students are determined to share information about their classroom experiences, and are accustomed to communicating online. Some colleges and universities, such as the University of Pennsylvania, have set up their own on-line review sites in response to this demand. An alternative plan, Pick-a-Prof, has attracted the attention of the Government of the Student Body (GSB) and is being introduced at Iowa State. This free online program offers academic services to both students and professors since, unlike other review sites, Pick-a-Prof will give professors an opportunity to post materials about their teaching.

Developed by students from Texas A&M, Pick-a-Prof is now used at nearly 90 universities by 600,000 students. Its founders see the program as a "matching" service that helps students learn about "professors' lecture style, homework load, and exam types," according to a 2002 UPI article.

Working with the institution's registration system, Pick-a-Prof gathers information about courses offered during a semester. It also compiles a "grade history," a bar chart indicating whole-letter grade distributions in a particular faculty member's section, or in the case of multi-section courses, for a course as a whole. Interestingly, when students post reviews

about a course or instructor, the student's major, year, and overall GPA are listed.

Pick-a-Prof offers a collection of services for faculty which aims to maximize both teaching and learning.

- **Course Information.** Instructors are encouraged to post detailed information about their courses on Pick-a-Prof that students can view before they register for classes. By looking into course outlines and expectations, students can understand what will be required of them in order to earn the best grade possible.
- **Professor Information.** Pick-a-Prof gives faculty the opportunity to connect with their students before the first day of class. Faculty can post contact information, office hours, or a personal biography. According to the Pick-a-Prof website (www.pickaprof.com), professors who share this information are "encouraging students to understand the scope of [their] research and educational background."
- **Student Feedback.** Professors can request anonymous feedback from the class at any point in the semester. The feedback system contains a bank of standard questions as well as space to create more, notifies students when feedback is requested, and organizes the results for the instructor to review.

Users of Pick-a-Prof need to register to use the system. To register, go to www.pickaprof.com and click on the "Register" link in the Professor Services box on the left side of the page. Then fill out the requested information.

CELT and GSB plan two student-faculty conversations this semester to provide an opportunity to talk about Pick-a-Prof. These conversations will be held on Wednesday, Feb. 15, 12-1:30 p.m., and Tuesday, Feb. 28, 3:30-5 p.m. Both sessions will be held in the Memorial Union Cardinal Room, and refreshments will be provided.

Circles, Workshops, Visitors on CELT Spring Calendar

Once again this semester CELT is sponsoring a wide variety of workshops, classes, and conversations. Look for more details and the full schedule on our website, www.celt.iastate.edu. Please remember to register for the events you will attend by contacting Marlys Carlson at celt@iastate.edu or 4-5357.

It's unusual for CELT to present a workshop "on location," but we will do just that when CELT Director Corly Brooke presents **Teaching and Learning in Large Classes** on Tuesday, March 21, 2-3:30 p.m., in the new LeBaron Auditorium, which was specifically designed to facilitate active learning in a large class.

Another unusual event is a pair of **Student-Faculty Conversations** offered by CELT and the Government of the Student Body (GSB). These sessions, on Wednesday Feb. 15, 12-1:30 p.m., and Tuesday, Feb. 28, 3:30-5 p.m., both in the Memorial Union Cardinal Room, offer opportunities to discuss **Pick-a-Prof**, an online course review system. See story, page 1.

CELT will sponsor several **Faculty Forums** this term. These sessions are designed to appeal to a broad range of faculty. Upcoming Forums include:

- **Electronic Portfolios and the eDoc Project**
Wednesday, Feb. 8, 12:10-1:30 p.m., Oak Room, Memorial Union. The eDoc is a collaborative project funded since 2003 to create and implement use of electronic portfolios in several departments. Learn about portfolios and how they can be used, and discuss the next steps for electronic portfolios at ISU.
- **Larry Michaelsen on Designing Effective Group Assignments**
Tuesday, Mar. 7, 12:10-1:30 p.m. Campanile Room, Memorial Union. Learn why group assignments often result in uneven participation and how to create broad-based member participation and learning. Learn more about Larry Michaelsen in the story on page 7.
- **The Right Digital Learning Materials for Your Course**
Tuesday, April 11, 12:10-1:30, Campanile Room, Memorial Union



Flora McMartin

Flora McMartin, an Ames native and graduate of ISU, will present this session for faculty members who are interested in integrating digital learning materials into their courses. McMartin is the Director of Member Services and Evaluation for MERLOT (Multimedia Educational Resource for Learning and Online Teaching), a digital library of teaching modules, assignments, and other materials for teaching and learning.

Three **Teaching and Learning Circles** will be offered this spring. Teaching and Learning Circles are small groups which meet several times to discuss a book or set of related readings (please register to receive meeting location). Enrollment is usually limited to 15. This semester's Circles include:

- **Rebekah Nathan's *My Freshman Year***
This book relates Nathan's experiences as a professor of anthropology who enrolled as a first-year student at her own university in order to learn more about college students' lives today. Thursdays, Feb. 9, 16, 23, Mar. 2, 12:10-1:30 p.m.
- **Wilbert J. McKeachie's *Teaching Tips***
This session, which is especially for graduate students, will treat a book that has long been an indispensable resource for postsecondary classroom teachers. Topics such as course preparation, discussion and lecture, and grading and assessment will be included. Mondays, Feb. 27, Mar. 6, 20, 27, 12:10-1:30 p.m.
- **Robert Leamson's *Thinking about Teaching and Learning***
Leamson's 1999 book has been cited by experts in the field as an essential tool for helping students. This book focuses on the college student's first year experiences, and offers insights and suggestions for successful college pedagogy. Enrollment is limited to 15. Wednesdays, Mar. 1, 8, 22, 29, 12:10-1:30 p.m.

In addition to these and other workshops, the **CELT Learning Technologies** staff will offer classes for beginners and advanced users of WebCT, as well as PowerPoint, StudyMate, and Flash.

Reflection

(continued from page 6)

Provide reason for reflection. This practice reduces resistance to new instructional techniques.

Provide structure for reflection. Many students appreciate a series of questions or a worksheet. Structure won't ruin reflection.

Employ culturally acceptable terms. Consider using discipline-specific terms like "feedback sheet" or "lab reflections" to show that reflection belongs in the student's discipline.

Provide examples. When students write a good reflective sentence, share with the class (ask permission or remove names first). Two common mistakes are summarizing material or providing observations instead of reflecting.

Grade reflective assignments. Make sure the exercises are given weight in the grading scheme, or students will take their cue from you and undervalue reflection.

Beg or borrow. Good materials about reflection are available online. Many ideas outlined here were gathered from Stephen Brookfield's *Becoming a Critically Reflective Teacher* (1995).

Preparing Future Faculty Continues to Grow

Now in its fifth year, ISU's Preparing Future Faculty (PFF) program is thriving. A comprehensive, diverse, and flexible program for master's and Ph.D. students as well as postdoctoral fellows, PFF enrolls about 35 new students per year and offers information and support in various aspects of their professional lives.

Offering teaching, mentoring, and learning possibilities, PFF is a supplement to departmental graduate preparation. PFF aims both to help prepare graduates for faculty careers and to offer further credentialing for a competitive academic job market. Since 2002, 525 students have participated in PFF classes, while 360 faculty have served in 775 presenter or mentor roles.

In addition to individual mentoring by faculty, students in the program can participate in four different courses for graduate credit, ranging from an overview of topics related to academic careers to in-depth classes and individual teaching experiences. Visiting professors offer information about faculty life at community colleges, small liberal arts schools, regional universities, and research universities.

As we all know, graduate school can be hard, and PFF students support each other through such hurdles as prelims, research problems, and dissertation writing. PFF also provides support for graduate teaching responsibilities from recitations to stand-alone courses. While many departments offer some teacher training, students benefit from the "extras" PFF offers on topics such as learning styles, problem students, and leading discussions.

PFF also provides information about and support for the job hunting process. The capstone course (Gr St 586) covers topics such as selecting schools for application; writing the vitae, job letter, and teaching philosophy; interviewing; and presenting research and teaching seminars. All PFF students receive individual feedback on their curriculum vita and job letter.

As they prepare for academic careers, students also investigate topics such as how to set up a research lab, what the first few years are like for young faculty, and how to balance teaching, research, service, and personal needs, as well as topics such as hiring and tenure, grant writing, and professional ethics.

Students have high praise for the program. A Ph.D. student in chemical engineering reported "I cannot imagine trying to begin an academic job without PFF... the program exposed me to so many different aspects of the academic community that I would have never even considered without it." A postdoctoral associate in Biomedical Sciences added, "It wasn't until I was accepted into the program that I appreciated how it could fill the gaps in getting from a postdoctoral to a faculty position." A M.S. student in Foodservice and Lodging Management noted, "Of all the classes that I have taken at Iowa State University, PFF has been one of the most practical and useful for my future career in academia."

More information about the PFF program, including contact information and application forms, is available at <http://www.celt.iastate.edu/pff/>.



Jim Stick, academic dean at DMACC's Ankeny campus, Erik Simpson, assistant professor of English at Grinnell College, Mark Mills, associate professor of mathematics at Central College, and Helen Harton, associate professor of psychology at the University of Northern Iowa, participate in a panel discussion on teaching at diverse kinds of institutions. The panel was part of Gr St 585, a Preparing Future Faculty course which helps prepare students for academic careers.

Teaching with a Heterogeneous Class

Philip Dixon
Professor, Statistics

I teach statistical methods classes to graduate students. Some, like Stat 401 and 402, are for graduate students in other fields. Others, such as Stat 500, 505 and 534, are taken by master's students in statistics and master's and doctoral students in other fields. Every class I've taught has impressed me with the heterogeneity among the students – between graduate and undergraduate students, and among students from different programs, with different math backgrounds, and having different goals. Some students want to know how to use a method and interpret the results; others are more interested in the mathematical details of why a method works.



Philip Dixon is one of the LAS Master Teachers for 2005-06.

This heterogeneity challenges the teacher – at least, it challenges me. Here are some of the things I do to address the needs of heterogeneous groups. Some of these have been discussed at previous CELT forums; if so, consider this as a vote of support.

1) Provide differentiated homework assignments. Some of my classes include some students mostly interested in mathematical theory and others mostly interested in applications. My homework assignments for these classes include four questions, of which only three need to be answered. One is an “easy” theory question, one an “easy” applications question, one a “hard” theory question, and the last a “hard” applications question. Not surprisingly, everyone chooses the two “easy” questions and one of the two “hard” questions to answer. This approach forces everyone to think about the basic theory and the basic methods while allowing students to focus on different issues. In principle, this approach could be used with exams, but I haven't tried that.

2) Survey the class sometime between weeks 4-7 of the semester and share the results with the class. My questions ask about clarity of lectures, length of homework assignments, pace of the class, and relative emphasis on interpretation of results, theoretical justification, or details of computing. Sharing the results makes everyone aware of the heterogeneity. If most of the class thinks the pace is reasonable, I won't change. My classes usually include two or three students (out of perhaps 55) who think the pace is too slow and another few who think it's too fast. After they see the results, those students understand why I'm not changing.

3) Ask students what they want to learn at the beginning of the semester. Stat 402 is one of at least four options for the

graduate “second statistical methods” class. The four classes are oriented to different audiences and cover different material. Quite often, I have students who would be better served by another class.

4) Use a variety of teaching strategies to accommodate different learning styles. For statistical ideas, this means including verbal descriptions of concepts, pictures and graphs to visualize the ideas, equations to make relationships exact, case studies to illustrate use and interpretation, and discussion to relate concepts to students' specific interests.

CELT Awards TEACH Grants

CELT has awarded ten TEACH Grants for the current academic year to faculty in eight disciplines. For the past three years, CELT has made these grants of up to \$1500 available to academic departments for use in faculty development related to the enhancement of teaching and learning.

- “Three on One Series”

Leland Poague and Neil Nakadate, Professors, English

- “Faculty Retreats to Enhance Ability to Effectively Use Ethnographic, Biological and Archaeological Films as Part of Classroom Curriculum”

Stephanie W. Aleman, Lecturer, Anthropology and Women's Studies

- “Shared Development and Evaluation of Non-Media Specific Studio Arts Courses”

Dennis M. Dake, Professor, Art & Design

- “Visiting Guest Lecturer in Food Safety”

Byron Brehm-Stecher, Assistant Professor, FSHN

- “Assessing Oral Proficiency in the Foreign Language Classroom”

Nelle Kottman, Adjunct Instructor, Foreign Languages and Literatures

- “Self-Assessment Reflective Writing for Student Portfolios in FSHN”

Eunice Bassler, Senior Lecturer, FSHN

- “Presentation and Seminar on Diversity of Islam and Islamic Peoples”

David M. Buyze, Lecturer, Philosophy & Religious Studies

- “Developing Departmental Student Learning Outcomes and a Shared Vision of Student Learning”

Srdija Jeftinija, Associate Professor, Biomedical Sciences

- “Helping Apparel, Educational Studies, and Hospitality Management Faculty to Develop Student Outcomes Related to Leadership and Entrepreneurship”

Susan W. Arendt and Linda S. Niehm, Assistant Professors, Apparel, Educational Studies, and Hospitality Management

- “Learning to Integrate Sustainable Design Issues into Teaching Art and Design”

Dorothy L. Fowles, Professor, Art and Design

ISU's Promotion Policies Attract International Attention

The promotion and tenure policies in place at Iowa State since 1999 have attracted the interest of institutions around the globe that are interested in ways to support and reward the scholarship of teaching and learning (SoTL) at research universities.

According to Lee Shulman, president of the Carnegie Foundation for the Advancement of Teaching, Iowa State's participation in nationwide SoTL initiatives has helped promote "a lasting impact on campus culture, faculty work, and student learning both nationally and internationally."

Last October, Provost Ben Allen, Associate Provost Susan Carlson, CELT Director Corly Brooke, and CELT Assistant Director Steve Freeman conducted a workshop on "The Role of the Provost's Office in Integrating SoTL into the Work of a Research University." At this workshop, held at a conference of the International Society for the Scholarship of Teaching and Learning in Vancouver, British Columbia, they discussed how the 1999 P&T policy was envisioned and approved by the Faculty Senate and university administration. They also discussed the process of implementing the new policy over the past six years. While the process is still ongoing, they were able to share some examples of how the ISU faculty have incorporated

the SoTL into their promotion portfolios.

Components of the university's P&T policy that support SoTL include the use of the word scholarship in describing each tenure-eligible faculty member's teaching, research/creative activities, and/or extension/professional practice. Scholarship is defined in the document as "creative, systematic, rational inquiry into a topic and the honest, forthright application or exposition of conclusions drawn from that inquiry. It builds on existing knowledge and employs critical analysis and judgment to enhance understanding. Scholarship is the umbrella under which research falls, but research is just one form of scholarship," since it also incorporates teaching, creative activities, and extension/professional practice.

A significant part of the P&T process is the position responsibility statement, which describes faculty responsibilities in teaching, research/creative activities, extension/professional practice, and institutional service. According to the P&T document, the position responsibility statement is used by evaluators to "interpret the extent, balance, and scope of the faculty member's scholarly achievements." The complete P&T policy is online at www.provost.iastate.edu/faculty/handbook/current/section5.html.

Larry Michaelsen Makes Return Visit to Campus



Larry Michaelsen is an expert in Team-Based Learning.

This past spring, Larry K. Michaelsen, Professor of Management at Central Missouri State University, presented two days of workshops on Team-Based Learning at ISU's College of Veterinary Medicine. CELT is pleased to bring him back to campus this spring for a Faculty Forum on Team-Based Learning.

Michaelsen will present a session entitled "Designing Effective Group Assignments" on Tuesday March 7, from 12-1:30 p.m. in the Memorial Union Campanile Room.

During this session, Michaelsen will demonstrate why group assignments often result in social loafing (uneven participation) in learning groups and will highlight the crucial elements of creating broad-based participation and learning in a group setting. In addition, the session will explore:

- Why well-designed assignments are the key to ensuring fair-

ness in grading of group work.

- How to design group assignments for teaching higher level thinking and problem-solving skills.
- How to ensure that students complete pre-class assignments so that they are prepared for in-class group work.

Holly S. Bender, associate professor in Veterinary Pathology, adopted several of Michaelsen's Team-Based Learning techniques after his 2004 visit. For example, she uses folders to organize and distribute materials in her clinical veterinary pathology course. She also organizes her class into learning groups and offers individual quizzes followed by group quizzes, which she finds increases the level of student learning. "I also distribute one [personal response] clicker per group," Bender says. "This encourages student collaboration as team members solve problems in class, and is much more efficient."

Michaelsen is a pioneering expert in Team-Based Learning, a comprehensive small-group based instructional process that is now being used in many disciplines, and is co-author of *Team-Based Learning: A Transformative Use of Small Groups in College Teaching* (2004).

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What Is “Reflection”?

Adapted from an essay by Nancy Grudens-Schuck,
Associate Professor, Ag Ed and Studies

We often hear of teaching practices that call for “reflection” or ask us as faculty to “reflect” on what we do. The term, however, can mean different things to different people. Is it a backward glance? A chance to judge? Is it something personal and private, or should it be shared? Because of this variety of possible meanings, it may not always be clear exactly how we should ask students to reflect on their learning.

Educators have described reflection as “the process of deriving meaning and knowledge from experience,” a process which “engages both teachers and students” and thoughtfully and intentionally “connects learning with experience.” Reflection is therefore closely tied to critical thinking, which many have described as “thinking about thinking.”

As Nancy Grudens-Schuck, associate professor, Ag Education and Studies, explained in a recent Ag College workshop, reflection offers students an opportunity to mull over concepts and practices, whether they seek to identify the assumptions behind their own beliefs or historical and cultural practices, or work to combine their emotional, sensory, and cognitive learning, for example in a team project or capstone experience.

Reflection is different from rote learning, creative expression, analysis, and observation, but it is not intrinsically “better” and is not just a substitute for these activities. Students can participate in reflection orally, through writing, and through visuals (including art). Students can reflect independently or in a group. Reflection is not harder than other tasks, and it can be taught, but learners differ in ability and some may struggle when asked to reflect.

Types of Reflection Assignments

Reflection assignments may include completing a brief in-class writing assignment, answering a series of questions outside class, keeping a journal, or posting a brief essay on WebCT. The form should fit the subject matter and the field of study. What matters most is the form of the question. Useful reflective questions prompt students to use their knowledge, to think about a specific experience, and to broadly consider the implications of their learning and experience.

Some Tips for Employing Reflection

Assign a minimum of three reflective activities. Students need to learn how to reflect, so assign a reflective activity multiple times. Keep the same format so they get the hang of it.

(continued on page 2)
