Richard Light “Makes the Most” of Research about Students

Dr. Richard Light, distinguished Harvard University professor, and author of Making the Most of College: Students Speak Their Minds, was the keynote speaker at the January 27 conference held at IPFW, sponsored by the First Year Experience, the Office of the Vice Chancellor, the School of Arts and Sciences, and CELT. Dr. Light enthusiastically shared his research at Harvard with 240 area educators in attendance. That research focused on first year students, their overall satisfaction with their college experiences over time, the value of extracurricular activities, engagement with faculty, and the importance of good advising.

Several years ago, at the urging of then-president of Harvard Derek Bok, Light began gathering faculty, student services personnel and students to discuss issues relating to the success and satisfaction of undergraduate students. A result of their conversations has been an on-going series of one-on-one interviews with over 1600 students that served as the basis of his book. Dr. Light spoke about several of the conclusions he has reached following this research.

He advises students to try to get to know at least one faculty member well every semester. Not only will this effort enhance the academic experience of that semester, it will ensure that students have several professors who know them and can serve as reliable references for jobs or graduate school after graduation. In fact, when these same students were interviewed during their senior year, many mentioned that getting to know faculty members was the “best advice” they received.

Students who expressed less satisfaction with their academic experiences were typically those who were less engaged academically. Light pointed particularly to students who chose their courses with the attitude of “getting the requirements out of the way,” and who, not surprisingly, rated their experience as less fulfilling.

Freshman “success stories” included those students who returned to college after a first year of academic success and satisfaction realizing the importance of managing their time while in school. Students who did poorer academically and were unhappier generally related they hadn’t made a conscious effort to do anything different from what they had done in high school, and apparently didn’t think about planning their time while in college.

In another study at Harvard, faculty teaching courses in the sciences encouraged their students to study in small groups. In the semesters following the implementation of this suggested way of studying, there was significantly less attrition of students from science degree programs.

The newest research Dr. Light and his colleagues have undertaken at Harvard is an (Continued on page 2)

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Richard Light...continued

Interview with graduating seniors which reflected the impact their college experience had on them when asked which three people in the twentieth century had done the most good for society. Those listed most frequently were, in order: Mahatma Ghandi, FDR, Ronald Reagan, Winston Churchill, Nelson Mandela, Margaret Thatcher, Martin Luther King, Jr. and Anwar Sadat. Although Light was delighted the list included some individuals who were other than white male Americans, his colleagues pointed out that the list encompassed only politicians, and were distressed at the lack of artists, writers, scientists, and educators.

The recurring theme throughout Dr. Light’s presentation was the importance of engaging students, especially first-year students, in choosing their plan of study, taking responsibility for their own learning, and interacting with their professors and their peers. While he pointed out that the approaches taken by the Harvard faculty might not always be the most appropriate for IPFW or any other institution, he provided ideas and inspiration for facilitating student engagement that could be applied in any academic setting.

After the keynote address, several breakout sessions offered discussions on the following subjects: advising, connecting learning to co-curricular activities, recognizing writing as a valued commodity, connecting students to faculty and staff, making diversity count, exploring student leadership, and graduation success. After lunch, those same groups reported back to the larger group, with Dr. Light providing further insight. He then met with CASA and the First Year Experience Learning Community teachers for more conversation.

- Barbara Resch
- Karol Dehr

Light’s book, Making the Most of College: Students Speak Their Minds, is available at the IPFW bookstore.

eInstruction Clicks with Students

Thirteen instructors representing eight departments used the eInstruction classroom response system (“clickers”) in Fall 2006. (All but two were Math, Science or Health Sciences sections.) Their reasons for using the devices varied: providing an easy way to take attendance in a large class; giving the students a preview of exam questions; wanting to discover student difficulties with understanding the course content; keeping the students interested in classroom activities; and stimulating discussion on controversial topics. CELT compared our faculty’s goals with those expressed in other studies of similar systems and designed its own study to systematically evaluate students’ views and the experiences of faculty and support staff. Of the 446 students responding to the survey, 333 either agreed or strongly agreed that answering questions during class helped them better understand the subject matter. Of course, a teacher does not have to use a clicker to ask questions during class. But, making a conscious decision to use the device to integrate question asking into a lecture, particularly in a class with over 30 students, encourages the question asking and necessitates a pause long enough to allow both students and teacher to formulate an answer or an explanation.

The second area of strongest agreement (259 out of 446) was that using the clicker helped the instructor to be more aware of the students’ problems with the subject matter. This finding is a function of the eInstruction software’s ability to instantly display, in chart form, a distribution of the students’ answers to a question.

Although the students found the clickers easy to use, on average it took about three weeks, according to the eight teachers interviewed, to iron out the technical glitches. Academic Computer Support Specialist Mandi Witkovsky played a key role in quickly solving problems, training, and documentation. CELT’s Samantha Birk coordinated all aspects of the implementation with West Lafayette, ITS Client Services and LRC’s classroom technologies staff, in addition to providing individual support to faculty.

With a semester’s worth of experience behind us and knowledge of both faculty and student perspectives, CELT hopes for smooth technical sailing so that teachers may focus on effective use of the technology to enhance learning. CELT will survey students again and interview faculty, investigating the impact of the technology on pedagogy and looking for indicators that could tell us how changes in teaching, facilitated by the device, impact student learning.

For more information about eInstruction at IPFW and links to other research, please see [http://www.ipfw.edu/celt/einstructions.htm](http://www.ipfw.edu/celt/einstructions.htm) on the CELT website. For a summary of a recent Purdue study, see [http://www.itap.purdue.edu/tlt/conference/tltproposals/clickers1.cfm](http://www.itap.purdue.edu/tlt/conference/tltproposals/clickers1.cfm). If you are interested in seeing a system and learning to use it please contact Samantha Birk at CELT x16368 or Mandi Witkovsky at ITS at x10722.

### eInstruction Survey Results for all Fall 2005 sections (n=446)

1. Knowing how my classmates respond increases my interest in the course.

2. Answering questions in class helped me to get a better understanding of the subject matter.

3. I paid more attention when I knew I would have to answer questions with the clicker.

4. Using the clicker helped the instructor to be more aware of students’ problems with the subject matter.

5. Using a clicker helped me enjoy class more.

6. It was easy for me to use the clicker.

[Graph of survey results showing distribution of student responses.]

- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
LEAD Community Shares Progress

On the Friday before the start of the new semester, LEAD (Leading Educational Application and Design Project) faculty, guests, and support staff met over lunch to share their progress and exchange ideas. Using CELT’s new projector and “wide screen” to project the innovative use of graphing calculators, faculty assumed the role of math students. John LaMaster and Yvonne Zubovic led pairs of participants through a highly interactive exercise in which they plotted independent and dependent variables in a rental car rate problem. What better exercise to instill instant empathy for the struggles of the first year math student! This engaging activity was followed by an exploration of IPFW-S (Implementing the Internet Protocol File Ware – Share) project with Jeff Nowak, Elementary Education. ITS programmers and network administrators are helping to build and implement this easy-to-use file sharing system across campus, to support collaborative work in student team projects. The twenty people attending this event then had the opportunity for one-on-one time with faculty leading the Biology, Chemistry, Math, and Education projects by DO LOOK NOW! The new VCAA web site is live and in color (old Boomers will get that one) at http://www.ipfw.edu/vcaa. Many have worked long and hard to make it happen. CELT’s Stephanie Haneline has played a critical role in making it happen, with vital support from VCAA and OAA Associate Steve Carr.

In January, “Conversations on Quality: Learning Spaces” appears on the new VCAA web site. (http://www.ipfw.edu/vcaa/conversations/default.shtml) This web page provides faculty, staff, students, and the community with the opportunity to learn about and participate in the re-design of learning spaces at IPFW. You can make comments on this topic and find research on topics relevant to the design of learning environments, instructional technologies, case studies, and examples of instructional technology plans by other universities. Learning Spaces is also the two-year theme of the new LEAD grant program. For more information on LEAD, see Conversations at the VCAA web site or the CELT Grants page.

Turning to other news, CELT is very pleased with its 2005 program attendance statistics. Overall attendance at our workshops and conferences exceeded 500, nearly double the figures for 2004. CELT also attracted an increased number of individuals: 292 faculty and staff compared with 216 in 2004. Traffic through the Faculty Multimedia Lab increased, and CELT consultants saw many of you on a one-to-one basis.

CELT could not serve you without the collaborative effort of CELT Advisory Board, faculty volunteers, and its staff. We hope that we can continue to provide you with the support you need for your teaching, and that you will feel free to communicate your needs, concerns, and ideas to us.

With best wishes,

Gail Rathbun
**LEAD Community...cont.**

circulating among mini-poster sessions.

This event was a great opportunity for cross-disciplinary sharing and for learning more about the LEAD program. You can learn more about LEAD at www.ipfw.edu/celt/grants.htm or by calling CELT at x16354.

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**Creating Multimedia...cont.**

hardware, software and various teaching methods within the limits of the existing media resources.

The result is a digital classroom that preserves the advantages of face-to-face teaching, while leveraging technology to make new learning experiences and materials available. Using a digital camcorder purchased with grant funds, Marshall is able to safely take his students onsite to construction projects to show the practical, real-world application of AutoCAD. Close-ups accompanied by his commentary help to focus students’ attention without distractions that might be present at the site, and students can return to the site as many times as they wish.

Working from his office, Marshall was able to use readily available software to create narrated step-by-step tutorials for learning AutoCAD. Using web-based application sharing software, Marshall could view in real-time students working at the location of their choice, coach them, and observe the student’s use of AutoCAD to take a practical quiz. In the past, Marshall spent much time in class going over assigned material. In discussing the re-designed course, he stated, “I was able to spend 100% of my time consulting with my students.”

This is the first semester that the course has been offered in a completely digital format and student response has been favorable. Students can learn at their own pace. Time-pressed students don’t need to drive to IPFW to participate, and athletes are able to take the course when on road trips.