Understanding the 'Facts' & 'Figures' and their learning

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Published by The Division of Student Affairs

Volume 4, Issue 2 June, 2006

National Survey of Student Engagement-OSU Results "Whadda Ya Think"

As educators we certainly hope that our students are thinking. But, what do we know about how students are engaging with academic material? What are their perceptions of what is emphasized in classes?

The National Survey of Student Engagement (NSSE) was developed to provide information to colleges and universities about the level of involvement their students have in educationally purposeful thought and activities. The items in the survey pertain to activities that are empirically derived good educational practices.

The survey was administered to a random sample of OSU first year and senior students. OSU students were then compared to other students who had taken the survey from other Doctoral Research Extensive Universities as well as a group of Selected Peers.

This article addresses one aspect of the study: the manner and degree to which OSU students believe that classes emphasize specific cognitive processes.

Students were asked to rate how often, during the school year, their coursework emphasized:

- 1. Memorizing facts, ideas, or methods from their courses and readings so they could repeat them in pretty much the same form.
- Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components.
- Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships.

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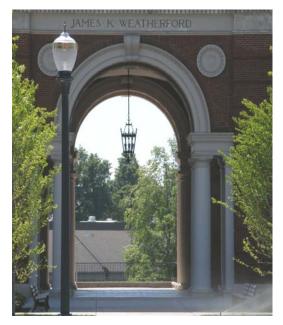
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Weatherford Hall The Living and Learning Environment

So who would ever think that the Weatherford Way would be transformed into the way of budding OSU entrepreneurs? Yet, that is exactly what has happened. The Austin Entrepreneurship Program began operating in partnership with OSU Housing and Dining Services, the College of Business, and the College of Engineering about a year and a half ago. Housed in Weatherford Hall, the living and learning environment was designed for the expressed purpose of developing modern day entrepreneurs.

So how does this work, how was the living/learning curriculum developed, what does it look like and what can be learned from this innovative educational partnership? First, the partners had a common vision of what they hoped would happen from the development of a cooperative venture aligned around the education of undergraduate entrepreneurs. Second, the tremendous financial support from the Austin family and other donors made the renovation of Weatherford Hall possible. And third, the tireless efforts of program faculty in the College of Business, College of Engineering, and University Housing and Dining Services created a truly unique experience for AEP students.

The first year of operation was one of learning for both the students in the pro-



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The Weatherford Way

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gram and also the faculty involved in delivering the program. As might be expected, not everything went as smoothly as it was envisioned.

What We Learned:

- Students were not clear about expectations or ways to get involved;
- Hall staff was not clear about their role beyond the traditional RA role, yet they were in a different kind of environment;
- Students showed mixed investment in the program;
- There was lack of clarity about what students were to learn and how to help them invest in the experience;
- Faculty were not entirely clear on the curriculum in terms of what was to be learned by students and how students would demonstrate that learning in a residential environment;
- At least a modest degree of frustration was experienced from all the people involved; and,
- Yet, the vision persisted and the desire to learn from that first year experience prompted a wonderfully creative effort.

These insights garnered from experience and attention to how what we had planned was really working led us to build upon this learning.

What We Did:

- Engaged in conversation with all involved program delivery partners;
- Reviewed the literature on entrepreneurship and on student development;
- · Wrote out the formal curriculum
- Mapped the co-curriculum over the academic curriculum;
- · Revamped RA selection and spring RA



training into a combined RA/ Entrepreneurial training that helped RA's to understand how what they do fits with the entrepreneurial curriculum of the Residential College;

- Worked with outcomes in mind and then set methods for measuring or tracking those outcomes over time;
- Developed a web page that made all of the curriculum, assessment, expectations, and progress transparent to students and others:
- Kept the conversations and collaboration going.

What It Looks Like Now at the End of the Second Year

- Curricular expectations and ways to engage are clearer and more transparent to students and others;
- Implementation of the AEP-T.I.C.K website;
- RA's are equipped with laptop computers for use in assisting students with AEP-T.I.C.K. web based program;
- Development and implementation of an Odyssey section for Weatherford residents—designed to introduce Entrepreneurship curriculum, while addressing first year transition issues and concerns;

- The "Entrepreneurship Challenge" brought together residents in teams to take \$20 of seed money and turn it into a profitable business;
- Weatherford Fellows (visiting executives and scholars) engaged students in discussions on a weekly basis on various aspects of the curricular competencies;
- Addition to the web program for AEP-T.I.C.K. entitled "blog and bank," where students can journal their learning prior to formally submitting work to complete a competency;
- Development of areas of civic engagement and social entrepreneurship within the AEP-T.I.C.K.;
- Curriculum laid out in terms of milestones. At the completion of a milestone students receive a portfolio with AEP emblem and other markers of their accomplishment;
- Conversation continues as the curriculum continues to develop based upon assessment of students involved in the program;
- Initial numbers of new applicants for the program show increasing interest in the program by first year students enough to fill Weatherford even with the additional academic fee to support the AEP program.

For More Information on this Program, Its Development, and the Collaborative Effort Contact:

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To View the AEP-T.I.C.K. Website Go

http://oregonstate.edu/aeptick/

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National Survey of Student Engagement "Ya Think"

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- Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data, and assessing the soundness of their conclusions.
- Applying theories or concepts to practical problems or in new situations.

In the 2005 NSSE Survey, FY students and SR students reported a great deal of emphasis on memorization in their classes, though not as great as the year before. This year, 70% of OSU FY students and 63% of SR students reported that "quite a bit" or "very much" emphasis was placed on memorization in their coursework. In 2004, 82% of FY students and 71% of SR's reported likewise.

When faculty were asked a similar question in terms of the emphasis they placed on these cognitive processes in their classes, there was considerable difference in what students reported and what faculty reported. Approximately 27% of faculty teaching lower division classes reported emphasizing memorization "quite a bit" or "very much." While about 25% of faculty teaching upper division classes reported emphasizing memorization 'quite a bit" or "very much."

One possible reason for the discrepancy between the report of students and faculty may be that evaluation methods used in the course emphasized recognition and recall. Students' perception of the course emphasis on memorization might in fact reflect the evaluation method rather than the course content. Generally, research on learning suggests that students engage with material in ways they believe will be rewarded (Huba & Freed, 2001).

First year students, unfortunately, did not do as well when compared to last year's OSU FY students regarding coursework emphasis on analyzing, synthesizing and organizing idea, making judgments, and applying theories and concepts. Senior

students however showed gains made in terms of reporting more emphasis on higher order cognitive processes, yet still 63% of SR's did report that their classes emphasized memorization "quite a bit" or "very much".

Only 62% of 2005 FY students indicated that "quite a bit" or "very much" emphasis was put on analyzing the basic elements of an idea, experience, or theory as compared to last year's 75% of the FY class.



The other three cognitive activities followed the same trend when compared to last year's students. In 2004, 59% of FY students and in 2005, only 47% of FY students reported that synthesizing and organizing ideas was emphasized in their coursework.

Making judgments about the value of information, etc. was reported by 60% of the 2004 FY class and only 48% in 2005 in terms of emphasis of "quite a bit" or "very much."

Both FY and SR students reported that the area that was emphasized the least in their classes was making judgments about the value of information, arguments, or methods such as examining how others gathered and interpreted data, and assessing the soundness of their conclusions.

Lastly, only 57% of 2005 FY students indicated that there was an emphasis on applying theories or concepts to practical problems or in new situations, as compared to last year's FY students at 66% reporting "quite a bit" or "very much" class emphasis.

When compared to FY students from other Doctoral Research Extensive institutions, OSU FY students fall significantly below in every measure of coursework emphasis in terms of cognitive activity except in the area of memorization.

Nationally, FY students have been reported to be under-engaged in their university academic environment. OSU FY students certainly show that intellectually, they believe that memorization of academic material is the way to student success.

OSU, as an academically sound and research rich university, may want to consider how this rich environment can stimulate engagement of FY students with academic material at higher levels than mere memorization.

International Assessment and Retention Conference

June 15-19, 2006

Assessment, Accountability, and Retention in the Learning College

Rebecca Sanderson, Pat Ketcham and Jessica Heintz will be presenting a preconference workshop entitled, Strategies for Successful Implementation of Assessment of Student Learning in Student Affairs on June 15, 2006. This conference is sponsored by the National Association of Student Personnel Administrators and is held annually.

Sanderson, Ketcham, and Heintz are faculty in Student Affairs and all serve on the Student Affairs Assessment Council at OSU.



Faculty Survey of Student Engagement—OSU Results

The Faculty Survey of Student Engagement (FSSE) was developed to parallel the National Survey of Student Engagement (NSSE) which is given to first year and senior students annually. The FSSE was designed to obtain information from college and university faculty across the nation about the ways in which faculty involved undergraduate students in good educational practices, both inside and outside of the classroom.

Faculty at OSU were invited to participate if they had taught at least one undergraduate course during either Fall, Winter, or Spring terms in 2004-2005. The response rate was 42% with 479 of the 1144 invited faculty responding.

Faculty were asked to base their responses to the survey on only one class of their choosing. They were then asked to classify that course as Lower Division (mostly first year and sophomore students) or Upper Division (mostly junior and senior students). Most faculty (53%) selected an upper division class upon which to base their responses.

Of the faculty who responded to the survey, 60% held professorial rank, 26% were over the age of 54, and 48% had over 15 years of teaching experience. In terms of gender, 63% were male and 37%f were female.

Questions were sorted into six categories that corresponded to the NSSE benchmarks. They included: Academic Challenge, Student Interactions with Faculty, Active and Collaborative Learning, Enriching Educational Experiences, Supportive Campus Environment, and Educational and Personal Growth Items.

While it is beyond the scope of this article to report all the results, the following are some highlights that may be of interest to faculty and others at OSU. The full report is on the OSU Library Scholars Archive, the electronic database, under Student Affairs.

Academic Challenge

- Both faculty teaching an Upper division class and faculty teaching a Lower division class reported less OSU emphasis on studying and academic preparation than did either first year or senior students.
- The cognitive process that both faculty and students agreed was emphasized the least in their classes was "making judgments about the value of information, arguments or methods such as examining how others gathered and interpreted data and assessing the soundness of their conclusions."

Student Interaction with Faculty

 The percent of students who planned to or had already finished work with faculty on research projects outside of class requirements was lower (FY 30%, SR 29%) than the percent of faculty who indicated that it was "important" or "very important" to them to have students working with them on research projects (LD 50%, UD 51%).

Active and Collaborative Learning

 The use of community-based projects as part of a course was not rated very highly by either students or faculty. This type of experience, though occurring in a small portion of the groups sampled, seemed not to be a common experience for either faculty or students. Yet, these sorts of experiences foster student learning and integration of that learning.

Enriching Educational Experiences

- Generally, faculty placed a slightly higher emphasis on study abroad experiences than did students.
- Only 25% of faculty reported that students "often" or "very often" had serious conversations with students who were different from them in their course. Yet, 48% of the FY students and 55% of the SR students indicated that they did frequently have serious conversations with

students who differed from them.

Supportive Campus Environment

 The majority of FY students and SR students (69% and 62%) reported that OSU emphasized providing academic support. Faculty responded likewise.

Educational and Personal Growth Items

Very few faculty (LD = 30%, UD = 38%)reported structuring their class to influence a student's ability to speak clearly and effectively. Yet over 50% of faculty reported that they did structure their class to foster writing clearly and effectively.

The full text of the report can be found from the OSU Library home page under: ScholarsArchive.

OSU Perspective: What is it?

The **OSU Perspective** was developed to provide assessment and other information about our students and programs. We hope that by making this information available to OSU faculty and staff, we can stimulate conversation that helps keep students and student learning at our core.

The **Perspective** is published quarterly both in print and on the web: http://oregonstate.edu/student_affairs/research/perspective.html

Ideas and suggestions for subsequent **OSU Perspective** publications are welcomed.

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