

Student Academic Engagement Work Group

Report: 07/24/2007

Tell me about something,

..... *I'll forget*

Show me something,

..... *I'll remember*

Involve me in something,

..... *I'll understand*

--- ancient proverb

Charge:

- A. Strengthen relationships between students and faculty through an increased commitment to student-centeredness.
- B. Engage students across all academic disciplines in student-centered learning and provide meaningful opportunities to work with faculty mentors in conducting, presenting, and publishing scholarly, creative, and scientific research.
- C. Employ the principles of engaged adult learning throughout the undergraduate programs.

Members:

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- **Clayton Holmes**, Chairman of the Physical Therapy Program and Associate Professor
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Strategic Plan references: I: 5, 7, 8

Introduction:

The ancient proverb quoted at the beginning of this report summarizes the guiding philosophy for this committee. The goal for enhanced learning experiences for students at The University of Toledo is to transform the academic culture from that of professor-to-student teaching to one of student learning with mentoring relationships by professors. The discussion in the committee was divided into two parts: experiential learning inside the classroom and experiential learning outside of the classroom. It is also recognized that students may have personal issues that inhibit a successful academic experience. The discussion of this topic appears later in this document.

University Culture:

After an involved study within the Foundations of Excellence program¹ comparing the perceptions that primarily freshmen UT students have about the University of Toledo, it was found that our university is statistically no better and no worse than other comparable-sized universities. There are nine dimensions in this Foundations of Excellence study, including: philosophy; roles and purposes; transitions; all students; diversity; and faculty. Each dimension was reviewed by a committee. The action items and recommendations from this study are available through the First Year Experience office.

Within the actual engagement of academic learning; challenging students and enriching academic experiences are the desired outcomes but they also require variable of the amounts of time that faculty members would be able to spend with students. We need to define the tools, we need to provide the resources, and we need to look at a reward system for faculty. Most faculty want to engage with students and most students want to engage with faculty. If we make those assumptions, then we need to realize that we have spent years creating a culture that rewards faculty research, work in the lab, publications, and not necessarily student centeredness.

The previous culture was defined by faculty being researchers and scholars. Today things are different because new faculty are given the reward of a reduced teaching assignment to allow them to build up the lab or the research. For successful researchers, a reward is the opportunity they have of buying out of their teaching load through grant money and funding for research.

One barrier to student engagement is the culture within departments. Departmental cultures generally value their majors, but as an unavoidable contrast, there is less interest in those students taking introductory courses than in those students whom are majors. This culture is a deep-seated problem that we need to address.

Other barriers to student engagement are the reward structure to faculty and in the departmental missions. As an institution, we recognize faculty members and departments that are successful in research. The administration rewards successful faculty researchers by allowing them a lighter course load, and in many cases, with higher merit ratings. Faculty need to equally (with research) earn rewards for teaching and working in student-centered areas where they excel. This is difficult, because it is hard to quantify a reward structure for faculty making an effort at creating a supportive environment for students. It is important to the mission of the university, but it is also hard to measure outreach and engagement. This topic is generally outside of the charge to this committee, but it contributes to the prevailing university culture. Topics for future and/or other committees could examine ways to have faculty be in service to the community. There also needs to be a way to allocate faculty workload to such things as students' first year experience in order to affect the culture.

The university has made recent efforts to be more student-centered by cutting back on the number of part time instructors and hiring new tenured/tenure-track professors to allow students more time with full time faculty members. Even so, about 40% of the members in new faculty

orientation sessions are visiting assistant professors (VAPs). Some concerns about this group and the selection of the members within this group have been expressed because the VAPs are not on a career path within the university. Full time tenured/tenure-track faculty generally have the first choice of course assignments. This means the VAPs are given teaching assignments that are “left over”, which in many cases, means VAPs teach introductory courses to several hundred students. There is very little incentive for these faculty members to have any long lasting influence because they are not on the tenure track. They do not have institutional commitment. This is an area we should investigate to define student and faculty needs appropriate to the university because it is an area which affects many students early in their UT experience.

Revising the University Culture:

The following discussion was taken from the UT College of Education State of the Union Address² to the faculty on October 07, 2005.

Learning Paradigm²

- A paradigm might be thought of as a pattern of thought that helps us make sense of some reality. We might, for example, think of schooling as the delivery of instruction.
- We would then organize our schools and colleges around how best to deliver instruction. This is what we have done.
- What if our paradigm was to think of schooling as promoting learning? How would schooling differ?
- Let us think as one as the “instructional paradigm” and the other as the “learning paradigm.”

<u>Instructional Paradigm</u>	<--->	<u>Learning Paradigm²</u>
Transfer knowledge from teacher to student	<--->	Students discover and construct knowledge
Offer courses and programs	<--->	Create learning environments
Quality of entering students	<--->	Quality of exiting students
Quality of faculty/instruction	<--->	Quality of students’ learning
Time held constant, learning varies	<--->	Learning held constant, time varies
3 hour courses, 50 minute classes	<--->	Environment ready when student is
Covering material	<--->	Specified learning results
Degree = accumulated credit hours	<--->	Degree = demonstrated knowledge
Learning is cumulative and linear	<--->	Learning is an interaction of frameworks
Talent and ability are rare	<--->	Talent and ability are abundant

Inside Classroom Learning:

Student learning takes place in numerous venues, spanning classrooms, residence halls, and laboratories. It is still the case, however, that very large numbers of our students view the classroom as the primary learning environment. Often these courses – especially at the 1000/200-level – are large “lecture-type” classes. For fall semester 2006, UT’s main campus offered approximately 100 courses with enrollments exceeding 75 students. Over 13,300 students were enrolled in these classes. Efforts to improve teaching and learning in these large classes have the potential to impact a very large fraction of UT’s student population especially in the critical first year. According to the “Your First College Year” survey information for 2006, 75% of our first-year students report that at least one of their courses was a large section; more than 40% reported that *half* their courses were large-section classes.³

Resources and activities for enhanced inside classroom learning:

- Center for Teaching and Learning
- Modernization of classrooms
- Personal Response Systems
- Master Teacher recognition

Barriers to enhanced inside classroom learning:

- Auditorium-style lecture halls limit (or inhibit) active learning by impromptu exchanges with the lecturer.
- While instructors are “content experts,” they usually have little training in teaching methods. As a result, they usually fall back on the only method they are familiar with—the lecture.
- “Today’s students view themselves as consumers, and this self-perception influences their expectations and behavior in the classroom. Our students have also been influenced by media that feeds into and reinforces short attention spans. Our lecture classes seem to go on and on and on. Google and other search engines create a sense of power and control that our students bring into the classroom. Generally, curriculum is controlled by the department and the instructor and this creates a sense of frustration in many learners who would like to drive their own learning. We need to find ways to tap into authentic questions learners bring to a study of a subject matter. Finally, we now know a great deal about learners and the way their personalities and learning preferences (cognitive functioning) impacts learning. Yet, few faculty have adjusted their courses for these differences.” - Dr. Peter M. Saunders, Oregon State University⁴
- While instructors are concerned about teaching *evaluations* (used almost exclusively in a summative context – for tenure/promotion/merit issues) there is little awareness or use of in-class *assessment*. Assessment asks the question: if learning has not been achieved, what factors or behaviors have interfered with the learning process?

Outside Classroom Learning:

“The most valuable experience I had during my four years in college was performing undergraduate research. My research project in the Department of Biological Sciences taught me that current scientific research was far more fascinating than what was being taught in the classroom. I never would have thought that I would be interested in biomedical research as a career, but my experiences working as an undergraduate researcher led me to pursue my doctorate in biology. When applying to graduate school, nothing impressed the admissions committees more than my experience working in an actual research lab. Learning in the classroom was important, but nothing has been more important to my development as a student and as a scientist than my experiences with undergraduate research at the University of Toledo.”

-- Morgan Sammons, UT 2005 graduate (B.S., Biology, B.A., Chemistry)

[Morgan did his cancer research with Prof. Brian Ashburner in Biosciences, and is now a Ph.D. student in Cancer Biology at Vanderbilt University Medical Center. He is also the first author on a recent paper with Prof. Ashburner in The Journal of Biological Chemistry.]

This statement of a recent UT student concerning his out of classroom learning experience can be echoed by many of the students that have undertaken one of the opportunities

offered by the: co-op internship, FYE, Service Learning, Study Abroad, and Undergraduate Research programs. The University of Michigan recently conducted a large study⁵ (population 1,280) of first-year and sophomore students to assess the value of undergraduate research on retention rates. This study was sufficiently large enough to obtain statistically significant numbers to compare trends amongst the African-American, European-American, and Hispanic-American groups. The authors conclude by stating, "... The program provides ample evidence that it is possible to concentrate on both the educational and research missions of a university to the benefit of undergraduate students. Undergraduate student satisfaction and success is not incongruous with the mission of research universities, ...".⁵ The University of Toledo has recognized the value of outside classroom learning by devoting significant resources to the experiential learning programs such as First Year Experience (FYE), the Honors Program, Service Learning, Study Abroad, and Undergraduate Research. While the Honors and the Study Abroad programs have existed for many years at UT; FYE, Service Learning, and Undergraduate Research are very new programs -- all created within the last three and one half years. The offerings of these programs are continually being expanded as these programs are maturing. The recent Core Curriculum report⁶ in commenting on the Provost's "Six facets of a New Core", stated:

"...There was a general recognition that such extended academic experiences could have a positive impact on learning, and in addition are important features in current trends in higher education. As a consequence, the Committee felt that further strengthening of the University curriculum in these areas could be in the best interests of the institution. Of the proposed initiatives, service learning, undergraduate research, and field experience garnered the most support."⁶

They also recognized that extra effort on the part of faculty and resources are necessary in order to implement experiential learning programs into the core program.

The content of the new course ARS2980: "Issues in Research and Scholarship" covers a wide range of topics and is germane to almost - if not - all UT students. It is being offered for the first time this summer and has been very well attended with on average of 40 students attending the bag lunches each week. The current syllabus is contained in the Appendix of this report. The course coordinators, Thomas Barden (Honors) and Thomas Kvale (Undergraduate Research), are exploring the possibility of offering this course - or at least its content - during the academic year as well.

Barriers to enhanced outside classroom learning:

- The directors serving the offices of Service Learning and Undergraduate Research both have only half time faculty release times. This limits the rate of growth and student involvement of these new programs.
- The offices of FYE, Service Learning, Study Abroad, and Undergraduate Research are spread across campus, some of which are in locations that are not conducive to interactions with students.
- Funding for these programs primarily comes from base budget funds.

Holistic Approach to Students:

For a student to be successful in the classroom and for us to be student centered, we need to care for the students holistically, whether in the classroom or out of the classroom. In many cases, faculty are among the first individuals that can spot non-normal behavior in students. This was made tragically visible in the recent Virginia Tech incident. However, there appears to be a misunderstanding by faculty and administrators^{7,8} what is and isn't allowed under the federal Health Insurance Portability Accountability (HIPAA) Privacy Rule and the Family Educational

Rights and Privacy (FERPA) Acts. Faculty and staff need to have information on what steps they should take and offices they could contact if they encounter a troubled individual. UT does have the resources and offices to handle these cases but correct procedures should be common knowledge among the faculty and staff.

“Shape the future by investing in students today”

Recommendations:

The recommendations listed below contain references to the committee charges identified on page 1 in parentheses and a rough budget estimate of the cost of implementing that recommendation. The recommendations also reflect the working assumption by the committee that the primary goal of this report would be recommendations for short-term (0 - 2 year) implementation. These recommendations should be re-evaluated after implementation and if successful, incorporated into long term (5 - 10 year) institutional planning.

Inside Classroom Learning:

1. **Establish “Master Teacher” programs** in most colleges, possibly modeled on the existing Arts and Sciences group, to provide recognition, voice, and responsibilities for the University’s best classroom teachers.
 - A&S - 5 Master Teachers; \$1,000 per M.T. over two years. Cost: 5 Master Teachers/college x number of colleges x \$1,000 per M.T. (Charge A)
2. **Encourage/increase the assignment of accomplished teachers** (including Master Teachers) to the large (>75 students) lecture-sized courses.
 - A reward structure should be implemented for these successful lecturers. This could include: travel funds to pedagogical and/or training conferences, funds for assistants to help with lectures, lighter teaching loads other semesters, recognition by the provost and/or president, etc. Cost: \$500/large lecture assignment, but depends on the actual reward structure implemented. (Charge A)
3. **Expand the use of personal response systems** (“clickers”) to actively engage the students during lectures. This is one proven method to help alleviate the difficulty in the large lecture format courses. As presented in the data above, a large percentage of the UT student population are enrolled in large lecture courses in any given semester. An estimate of the percentage of these courses that: are currently, have recently, and/or are planning on using the clickers is about 10%. These are/have been mainly in the introductory science courses even though their value can be realized in almost all disciplines.
 - Identify an office to be the campus coordinator for the implementation of clickers. A possibilities include: the Center for Teaching and Learning, the Center for Creative Instruction, or an office housed within the College of Education. If identified, there should be an increase support personnel assigned to this office to assist that office in the clicker implementation. This could be: a graduate assistant, part-time EIT or CCI staff member, College of Education assistant, etc. Cost: dependent on specific implementation. (Charge A)
 - Begin new faculty implementation training in Fall semester 2007, then expand classroom use in Spring semester 2008. Implementation training could include hosting a workshop in F07 to include speakers from disciplines not currently using the clickers in large lecture courses such as: Arts and Humanities, social sciences, medicine, etc. Workshop cost: \$10,000. When classroom use justifies it (> 75% of large lecture course use), then recommend purchase for entire freshmen class. Cost: \$30/unit retail x freshmen class population. (Charge A)

Outside Classroom Learning:

1. **Enhance experiential, non-classroom, academic learning** by increased support and visibility of the newer, existing UT programs such as: FYE: First Year Experience (established 01/2004); Service Learning (established 07/2005); Undergraduate Research (established 05/2006).
 - pre-2006 provost funding of undergraduate research was 33k\$ for 12 students in the USR&CAP program. However for Summer 2007, over 40 students are participating in either the FYSRE, Research Abroad, USR&CAP, or UT-City of Toledo Internship programs. Expenditures for summer 2007 were of order 95k\$. About 100 proposals/applications/resumes were submitted for the summer programs, so many qualified students were not able to be supported due to current funding levels. Additional undergraduate research programs of AY-research, Grants-In-Aid, Work-Study (Research) are planned to be implemented in AY2007-08. It is also hoped that the current programs also grow in participation. The philosophy for proposal submission process is that it is initiated by the student by discussing research projects with the faculty members. This encourages individual student/faculty interactions. Cost: to maintain current level of undergraduate research: 100k\$, to grow: 150k\$. (Charges A, B, C)
2. **Centrally locate together the offices** of: FYE, Service Learning, Study Abroad, and Undergraduate Research. The directors of these offices, as well as the Honors program work well together in coordinating efforts, but many times student projects involve several of these programs simultaneously.
 - Service Learning and Study Abroad currently are on different floors of the Student Union, whereas FYE and Undergraduate Research are close to the provost's office (to which they report) in University Hall. Cost: relocation costs of Service Learning and Study Abroad to University Hall. (Charges A, B, C)
3. **Undertake a highly visible capital campaign** to augment the base budget funding of these programs.
 - As seen from the cost estimate for maintaining/growing undergraduate research, external funding sources should be identified to augment the base budget funding of these programs. Investing in students is an ideal way of investing in the future! Cost: materials and travel costs for presentations to corporations, alumni, community leaders. (Charges A, B, C)
4. **Expand the offerings of courses that integrate out of classroom experiences** with inside classroom studies. Examples of this would be the expansion of current *First Read Program - Book Reading For First Year Students*, of which this committee affirms its support of similar recommendations of other committees (notably the STEMM Integration committee). Other examples include additional service learning courses, and/or development of interdisciplinary courses such as the Massachusetts Institute of Technology's *Terrascope Program*⁹.
 - Cost: course materials, \$500-\$2,500/course appears reasonable. (Charges B, C)
5. **Enhance the scope/variety of living/learning communities** on the UT campus.
 - Currently, FYE funds an Arts/Living Learning community that has been very successful. The academic House residence hall has for many years housed honors students. The residence directors have cooperated with undergraduate research to create living/research wings of the residence halls to house undergraduate research students in the summer months. For expansion of these communities

during the academic years, the costs would be related to remodeling of some of the residence halls to aid in the development of a community atmosphere and possibly stipends for faculty advisers for each community. Cost: to be determined, possibly a longer term goal. (Charges A, C)

6. **Increase staffing** of the offices of Service Learning and Undergraduate Research.
 - The half-time faculty release time appointments currently limits the growth of these programs. Since the directors are faculty members, the cost to increase these positions to full time directors would be only a budget line item realignment of the faculty salaries. As these programs grow, it would be beneficial to have part-time administrative assistants assigned to each office. Cost: additional administrative support. (Charges B, C)
7. **Expand the lecture/speaker series** to bring nationally/internationally renowned experts to speak on specific topics (and this can be interdisciplinary/crossed-sectioned). This would provide an opportunity for faculty and students to interact and have meaningful discussions both inside and outside the classroom.
 - Cost: Speaker travel and honorarium, \$5,000-\$10,000. (Charge C)

Holistic Approach to Students:

1. **Make available and/or more visible a central website** that faculty can view to obtain information/resources/tips on how to detect/refer or assist students needing non-academic help: i.e. dealing with difficult students; dealing with disruptive students; possible suicidal students; when and how to refer student for discipline (academic and non-academic misconduct); sexual assault; alcohol problems; mediation; Ombud service; counseling; wellness issues, campus involvement, etc. This information can be incorporated in new faculty orientation, as well as for established faculty.
 - Cost: assignment of EIT web personnel to maintain website, relevant directors/staff/faculty for materials, possible workshop/presentations. (Charge A)
2. **Reaffirms that the offices** of Residence Life, Student Affairs, Financial Aid, and Health centers coordinate efforts in the best interests of the students.
 - Cost: minimal additional costs. (Charge A)

References:

1. Foundations of Excellence program, <http://www.fyfoundations.org/>.
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5. Biren A. Nagda, Sandra R. Gregerman, John Jonides, William von Hippel, and Jennifer S. Lerner, "Undergraduate Student-Faculty Research Partnerships Affect Student Retention," *The Review of Higher Education* 22.1 (1998) 55-72.
6. Geoffrey Martin, "Report of the Ad Hoc Committee to Study the Core Curriculum," The Ad Hoc Committee to Study the Core Curriculum of the Arts and Sciences Council, April 25, 2007.
7. James W. Stewart, III, Inspector General, "Inspection of April 16, 2007 Critical Incident At Virginia Tech," Prepared by: Office of the Inspector General For Mental Health, Mental Retardation & Substance Abuse Services, Commonwealth of Virginia, Report: # 140-07, (2007).
8. Elizabeth Redden, "Fuzzy Understandings of FERPA," InsideHigherEd.com news, posted June 14, 2007.
9. Kerry K. Karukstis and Timothy E. Elgren, "Developing & Sustaining a Research-Supportive Curriculum: A Compendium of Successful Practices," Council on Undergraduate Research, Washington, D.C., 2007.