Selected Examples of Recent Program Improvements Resulting from Assessment Evidence

I. UNDERGRADUATE PROGRAMS

The 2010-2011 assessment analysis showed that the percentage of students that were in the ‘developing’ category for the ability to apply principles of capital budgeting was at 32%, which the faculty in the Finance undergraduate program determined was too high. A new capital budgeting Harvard online simulation and case was introduced in Fall 2011 with the objective of increasing students' understanding of the capital budgeting and corporate investing decision making process. The new simulation was successful at improving students' comprehension and application of capital budgeting techniques. In the academic year 2011-2012 the percentage of students in the ‘developing’ group decreased to 23%, while the percentage of students in the ‘exceeding’ group increased from 10% to 18%.

About 5 years ago, we discerned that our undergraduate Psychology majors were doing well in three out of five content areas, but not so well in biopsychology and cognitive psychology. We redesigned the psychology major requirements to require majors to take two courses that would fulfill this deficit. The graduating class of 2014 will be the first complete cohort of majors that arrived at MU under the new rules, and we plan to conduct an assessment that parallels the earlier one to make the appropriate comparisons. Our interim program evaluations have shown that students who actually take the two courses are meeting the intended learning objectives.

Faculty in the Information Technology major noted that some students were having difficulty working through a complex case study requiring them to integrate numerous aspects of program scheduling. As a result, more concrete examples, better illustrations and in-class exercises were added to the lecture.

Exercise Physiology and Athletic Training created a no-credit, open pay lab that allows undergraduate students to enter the physiology lab on Mondays and practice exercise blood pressures, EKG strip reading, VO2 and other tests under supervision of a Clinical Assistant Professor. This action was taken to increase student proficiencies in cardiovascular testing and lab performance, based on commentary from students and Clinical Instructors as noted in our assessment tool.

Assessments in the History major revealed that seniors approaching graduation were weak in identifying and writing thesis statements, and in proper Chicago style footnoting formats. Not only was there no consistency among faculty in teaching these skills, but there were also discrepancies in the content being taught. The faculty reached a consensus on a "department format" for citations; required thesis statement and citation exercises to be
included in all survey courses; and encouraged reinforcement of these skills when applicable in upper division courses.

The Mechanical Engineering assessment committee recommended a change to the curriculum after reviewing the results of the Fundamentals of Engineering Exam, a math pretest and the analysis aspects of engineering coursework. Passage of a proficiency exam at the freshman level is now required before students can proceed through the curriculum.

Assessments of Social Welfare and Justice majors showed poor retention of research methods materials. The faculty implemented a new course in Spring 2013 called ‘Experiential Field Research’. This course integrates all of the learning objectives of the major while it teaches seniors research methods commonly used in the non-profit sector (surveys and focus groups, targeted sampling). The faculty believe that when students actually apply research methods in practice, their retention will increase significantly.

Noting that early coursework for Math for Elementary School Teachers majors does not sufficiently develop the mathematical abilities needed for upper-division coursework, the program increased the number of required credit hours in calculus from 3 to 8.

Assessments over several years showed that students were average or deficient in planning skills for Advertising and Public Relations, and needed better preparation in how to use research properly in these applied areas. Consequently, the second level research course was split into two separate courses, one focusing on advertising research and planning, the other focusing on research, strategy and tactics for public relations and corporate communication majors.

In the Initial Teacher Licensure Program, assessment results indicated that our secondary education majors were struggling in the area of lesson and unit planning. Additional lesson planning assignments were added to key methods courses in the program to provide more opportunities for students to develop this crucial competency.

In the Initial Teacher Licensure Program – Post-Baccalaureate, assessment results indicated that students needed methods courses at the very beginning of their program, rather than in the second semester. As a result, the course sequence was changed so that all students take a key methods course their first semester in the program.

In response to very high rates of student proficiency with the existing learning outcomes for three years running (over 90%), the department decided to establish more challenging learning outcomes in the English major, and to increase the number learning outcomes to enable more precise identification of areas of student success and challenge. We will be shifting from 5 learning outcomes to 21, to be assessed on a three-year rotating cycle. To help students succeed, the curricula have been redesigned to have more intentionally sequenced courses, which will enable the department to produce more sophisticated formative as well as summative assessments.
Upon noticing a dip in post-graduate placement in healthcare careers for our **Biomedical Sciences** majors, we created a new committee, the Career Advising and Internship committee to help strengthen our efforts in this area. This year the committee revamped our internship program, implemented secondary advising for students seeking career advice, and held a well-attended healthcare career event for our undergraduate students.

II. GRADUATE AND PROFESSIONAL PROGRAMS

Results of assessment of the MS in **Applied Economics** Program indicated a need to improve students’ ability to describe empirical models and their theoretical underpinnings. This led the Economics department to ask the faculty to make a clear distinction between theoretical models and the corresponding empirical models in all courses that require an empirical research paper, and to ask students to include a section or a subsection in their research papers devoted to a detailed description of their empirical model. After two years of implementation, faculty have observed improvement in this learning outcome.

One of the findings from the portion of our assessment process in the master’s programs for **Political Science and International Affairs** that employed the students' written and oral comprehensive exams, was that students were performing better on the outcome measuring their understanding of major concepts than they were on the outcome related to major theories. This was not only brought to the attention of the department faculty -- with the idea that they might focus a bit more on theories in their graduate seminars than they already do -- but it also led to changes in our annual comprehensive exams workshop. We made our expectations regarding the students' ability to critique, take apart, and repackage major theories in the discipline a central focus of the workshop. Although we have still seen a performance gap between these two outcomes, it has narrowed. This indicates that our increased emphasis on the importance of theories has helped students focus on this important skill as they prepared for the written and oral comprehensive exams.

Assessment of learning outcomes in the doctoral **Clinical Psychology** Program led to revisions in evaluation of students' readiness for externship and for internship. Regarding externship, students are now evaluated through coursework and through internal practicum experiences gained at the Center for Psychological Services and must be deemed "minimally acceptable" in professional, ethical and clinical abilities to be eligible to attend externship the following year. Regarding internship, students are evaluated via portfolio review and objective clinical examination. They must be rated "ready for internship" on all eleven competencies that correspond to learning objectives.

The assessment process in the M.A. program in the College of **Communication** revealed that, while students who outlined a research proposal as part of their comprehensive exams did well applying theory and methods, their proposed research questions were frequently unclear or not specific enough to be meaningfully answered through their proposed research. In addition,
students often neglected to address the ethical implications of the research they proposed. The program was able to achieve improvement in both areas after consultations with the faculty teaching the core research methods course to ensure that more attention was devoted to construction of research questions and that the courses contained units on research ethics.

In the Nursing Ph.D. program, content in research and statistics courses was reviewed with specific attention to content that addresses critique of methods. The need for a new course focused on measurement was identified; the course will be offered in fall 2013, and required for all newly-admitted students.

In the Law School, first year legal writing instructors will spend more class time on basic issues such as grammar and punctuation and citation formats. They will also refer students who need to focus more intensively on basic writing issues to the writing specialist. These deficiencies were identified through assessment.

Assessment for the Masters in Dispute Resolution and Masters Certificate in Dispute Resolution identified concepts and topics relating to ethics that needed attention. As a result, the program added ten on-line hours to each course to address this need.

After discussing several years’ of assessment results, faculty in the Management department collaborated to re-define the outcomes deemed necessary for Master’s students in Human Resources to be successful in an HR career. An advisory board composed of HR professionals in the Milwaukee area was formed to provide professional advice to faculty in revising existing coursework and developing new courses for the program. These recommendations are being integrated into the program.

In the Chemistry department, discussion of faculty expectations for student theses and dissertations led to development of detailed scoring rubrics, with the intention of being able to better diagnose where students are having difficulties with their research.

While revising the learning outcomes for the two master’s in counseling programs (Clinical Mental Health Counseling and School Counseling), the Department of Counselor Education and Counseling Psychology (CECP) determined they needed to map all accreditation standards to required courses to assess if the program was meeting all accreditation requirements. This curricular mapping helped the CECP faculty identify accreditation standards that had not been incorporated into the curriculum and led to the incorporation of standards regarding knowledge and practice into core courses for the master’s program.

Improved mentoring and more systematic procedures in administering the MA exam in English resulted from an identified need to integrate exam preparation into students’ programs of study. In the Ph.D. English program, workshops in partnership with the Association of English
Graduate Students help students build their professionalism (grant proposal writing, academic publishing) and skills for the job market (resume and portfolio making, interviewing). A newly-created assessment of students learning to be teachers will yield additional actionable information.

Our graduate program assessment in the Department of Biomedical Engineering identified a weakness in the number of peer-reviewed publications at the time of graduation from the PhD program. To address this weakness, we proposed a PhD credit hour reduction from 57 to 48, so that our programming is in line with requirements at competitive institutions and so that students have more time to devote to research and publication. This programmatic change has been approved by the department and the university, and will be in effect starting Fall 2013.

The graduate program in Biological Sciences used assessment results to add a mandatory writing course into the curriculum for second year students, and to make changes to the Ph.D. qualifying exam, including establishment of guidelines for the written proposal, and a rubric for the qualifying exam.

In 2012, Physical Therapy students scored below the national average in the System Specifications exam for the first time. The Department undertook a review of “other systems” content within the curriculum and have implemented a plan to include additional content in the genitourinary system.

The faculty in the Physician Assistant program used results of the Physician Assistant national Certifying Exam to identify areas of medical content and tasks where students score lowest relative to the national average. Together with student and preceptor feedback, this information led to changes in the didactic and clinical curricula, the hiring of a new adjunct instructor, changes to the capstone project, and other program improvements.

The History Department has increased the number of faculty members assessing the comprehensive exams for History master’s in order to address field coverage, as well as provided rubrics to the students for both exams and essays so that they have direct knowledge of the standards. The faculty also created a file of stellar essays as models for the students.

Ongoing assessment of outcomes in the Speech-Language Pathology master’s led to the establishment of a video library of clinical cases in the department, which allows students to supplement their clinical knowledge by observing patients with a variety of speech-language disorders.
III. CO-CURRICULAR PROGRAMS

Analysis of *English as a Second Language Program* students’ work suggested that students enrolled in the academic listening and speaking course needed additional work to improve their oral presentation and group discussion skills. In response, the faculty made a curricular change where their students now put together and deliver group cultural presentations in class and to local middle school students. This change has helped contribute to an over 50% change in the number of students ranked as proficient in their news broadcast presentations from AY 2010-11 to AY 2011-12. The students’ group discussion skills also slightly improved over the same period.

During the assessment process, the *Recreational Sports* staff used data to review and revise new fitness activities and classes to improve participant numbers. The fitness program concentrated on more personal training opportunities, and a new sign up method for a Fit Pass and Free Friday classes. These changes are providing a wider variety of programs for students to take an active role in their personal health that supports a healthy lifestyle.

Based on feedback from focus groups of commuter students, an enhanced orientation program was piloted last summer in *Student Educational Services*. That pilot will become a two day off campus retreat for new commuters in fall 2013.

The *Service Learning Program* implemented new ideas for reflection sessions after seeing a knowledge gap among students in the area of charity and social justice. As a result, the Program created and implemented a new reflection entitled “Making a Difference: The Change from Charity to Justice,” which has been very successful in getting students to move from seeing their service as weekly charity for an organization to working against injustices with and alongside an organization.

In response to assessment data reflecting less success in fostering positive interpersonal relationships in individual counseling, the *Counseling Center* has launched a group counseling program, which leverages the development of interpersonal relationships in improving student’s mental health concerns.

Because of a lack of data demonstrating actual student learning, the *Career Services Center* assessment process underwent a complete overhaul for academic year 2012 to move away from assessment via indirect measures to focus on assessment through direct measures. In doing so, it became necessary to involve the entire staff in the process of collecting data, which led to an office culture that supports and recognizes the importance of assessment. As a result of this work, assessment provided evidence that after participating in career services, students improve in their ability to articulate a career-related skill and tell a story to demonstrate that skill, recognize and develop their professional network, and are able to compose a professional resume. Additionally, the staff was able to develop a complete curriculum map which more comprehensively identifies student learning outcomes after utilizing Career Services.
In light of increasing roommate conflicts and subsequent room switches within the residence halls, The Office of Residence Life identified the need for more deliberate student education related to conflict resolution. We sought to identify student understanding of and primary approaches to resolving conflict. We identified three different tools for measuring: Community Engagement Survey, Roommate Agreement, and the Educational Benchmarking, Inc. (EBI) Survey. Students who participated in the roommate agreement process and identified it as a positive experience showed higher levels of perceived personal growth from their residential living experience. Specifically, these perceptions of growth occurred in their ability to resolve conflict, solve their own problems, and improve their communication skills. Students who participated in the roommate agreement process and did not cite it as a positive experience showed lower levels of perceived personal growth in their ability to resolve conflict, solve their own problems, and improve their communication skills.