We offer three examples.

Example 1—COP Experiential Oversight Committee (EOC). There is frequently a disconnect between the didactic curriculum and the experiential curriculum in pharmacy programs. In the COP, we established an Experiential Oversight Committee to bring preceptors who teach our students in the field into contact with the campus community in 2006. In 2006 and 2007, the preceptors were primarily meeting with clinical faculty and the meetings focused on logistics for clinical programs. Once Touro students started full-time rotations in 2007, the preceptors were able to identify areas of strength and weakness in the students’ learning and began reporting these to clinical faculty at the EOC meetings. The information was initially shared (poorly) through reporting. Given the value of the information, didactic faculty members were invited to the EOC meetings and face-to-face discussions ensued about students’ strengths and weakness. There were several outcomes. First, course content in several didactic courses was modified and/or increased in response to preceptor feedback. Second, additional coursework was added on a “call back” basis to help third year students transition to the clinical thinking required for rotations. The EOC preceptors have noted improvements in the students’ learning. A more formal assessment of the outcomes will involve comparing rotation grades of students from the earlier classes to those having better preparation in later classes.

Example 2—Student Clinical Thinking Skills. In 2007 when COP students began full-time clinical rotations, we received reports from the students that they were having trouble adjusting to the clinical environment and from preceptors to the same effect. In response, we strengthened the introduction to “SOAPing” (Subjective, Objective, Action, Plan), a systematic method for analyzing and presenting a patient’s clinical status. Practice with SOAPing was increased in the first two years with case studies, team and individual presentations and written exercises. In 2009, the clinical faculty further increased preparation with a rotations “boot camp”—a one-week course between the second and third year—to help students transition to the clinical environment. The course was completely case-based. In 2010, this course will become a requirement. The outcomes have only been partially assessed. Preceptors have reported the students are generally more capable as they start. We need to assess our students’ confidence levels as they start rotations. We also will use trend analysis to see if more recent classes are performing better on rotations than earlier students. Appropriate controls will be employed in the comparisons.

Example 3 – Report Cards. Students receive “report cards” each semester with detailed information about their progress in knowledge, comprehension (critical thinking skills) and clinical performance.
College of Osteopathic Medicine
TUC

A historical review indicates that during the first year of the institution’s operations there was little evidence of planning for outcome-based educational effectiveness. Curriculum was largely borrowed from other colleges of osteopathic medicine without much examination of the link between the curriculum and the stated goals for the institution.

From the beginning of the school, retreats were held semi-annually to review successes, failures and challenges facing the faculty. Among other considerations, distribution performance on exams in the classes, survey results and the accounts of the course coordinators of their experiences and frustrations, and performance by our students on Comprehensive Osteopathic Medicine Licensing Examinations (COMLEX), administered by the National Board of Osteopathic Medical Examiners (NBOME) were reviewed. Initially there was no clear analysis of how best to use the data, nor were plans developed to track alumni or correlate academic competencies and skill development. This disconnect was most evident in the clinical curriculum, a product developed by combining components taken from other medical schools’ curricula with little evidence of consideration of how the academic process related to the experiential curriculum of clinical rotations and the actual practice of medicine. A conspicuous problem was the lack of assessment tools, other than preceptor evaluations, in any of the dimensions of student progress through the clinical curricula. This was addressed with a rewriting of the clinical curriculum, a series of faculty development sessions at clinical rotation sites, and the creation of an objective exam for third year medical knowledge attainment, along the lines of the objectives in the rewritten curriculum. However, in neither the pre-clerkship nor the clinical rotations aspects of the curriculum, were multi dimensional assessments for non cognitive development utilized.

These factors inspired the faculty leadership to adopt a competency-based curriculum model, enabling the development of a system for assessment of student progress and institutional effectiveness that went beyond only evaluating students in comparison with their peers, and beyond only medical knowledge. This model provides outcomes that would offer an understanding of the progress and effectiveness of the program as a whole. Formative assessment is woven throughout the design of the curriculum, allowing the student and faculty to understand the student’s progress through the identified body of knowledge and targeted skills.

In 2004 this effort was started in a two day retreat with faculty and the Associate Dean for Curriculum and Faculty Development. In addition to the need to address multiple competencies, the need for more active learning, increased integration to build need-associated knowledge, the desirability for early clinical experiences to build contextual understanding and motivation, and the need to address exam centered, binge and purge learning was addressed in the redesign of the curriculum. Following this, a number of work groups were started, including an executive curriculum task force that oversaw the curriculum planning for the first two years. The first iteration of this revised, integrated
and competency-based curriculum was launched in 2007. Since that time there has been progressive integration of subjects previously separated by discipline and the development of more robust assessments, both formative and summative. Nine all-faculty multi-day conferences have been held, as faculty development and participant planning of the curriculum, along with frequent small work group meetings. Although structural change in the pre-clerkship curriculum has now been instituted, the work of reorientation of faculty tasks to a truly integrated curriculum is only partially accomplished, and the integration of multi-competency assessments remains a major task. The other major consideration is the next redesign of the clinical curriculum, with a component of more frequent and robust teaching and assessment opportunities for students in the core clerkships.

College of Health Sciences – Joint MSPAS/MPH Program
TUC

Pharmacology had posed several problems for the program over its existence. Initially, instructor changed each year and our students’ performance on the PANCE exam under clinical therapeutics fell well below the national average. Beginning with the class of 2008, the program hired Dr. Anthony Trevor, PhD, professor emeritus at the University of California San Francisco, School of Medicine, to teach our students pharmacology. Dr. Trevor was joined by a new PA faculty member Colleen Wight, PA-C, MA who joined the program in January 2007. These two were placed together in the Pharmacology course so that Ms. Wright could bring the clinical piece to the course that Dr. Trevor could not. Up until this point, the course evaluations were unfavorable and the students’ performance on PANCE demonstrated our students were performing well below the national average in clinical therapeutics (21.9% of the student performed above the national average and 39.7% performed below it for the class of 2006). Since then, the program has tracked the results of this change in both student evaluations and PANCE performance. The class of 2007, improved substantially, with 29.7% scoring above the national average and 31.1% scoring below it. The class of 2008 showed continued improvement with 32.4% scoring above the national average and 25.7% scoring below it. The results for the class of 2009 are pending.

College of Education
TUC

The program is applying student achievement data in many ways. Two will be described.

For the spring 2009 cohort, the action research project was a difficult assignment and students struggled and took longer than expected to complete. It is a pass/fail assignment. Four of seven students passed by the deadline and three of seven students required a time extension. As a result, a more detailed and functional action research project handbook was created to be used with the fall 2009 cohort. Further, the course instructors have been trained to help the student identify viable educational leadership action research projects.
For the spring 2009 cohort, using and understanding a decision-making matrix/map was a challenge. The students were given examples of exemplary matrices but had trouble applying them in scenarios and cases studies. Therefore, with the fall 2009 cohort, the students were directed to develop and create their own decision-making matrix/map. This helped the students develop their meta-cognitive skills as well as buy-in to the process. Students worked in small groups to refine their unique and personal decision making maps and used them in various settings and in a presentation. The buy-in and quality of responses to case studies has increased.

**School of Physician Assistant Studies**

**TUN**

The program has developed a database that includes information such as the following:

- Results of the PACKRAT (diagnostic exam) broken down into specialties and tasks
- Results of the PANCE (licensure exam) broken down into specialties and tasks
- Pre-admit grades in Anatomy, Physiology, Microbiology and biochemistry
- Pre-admit Science GPA
- Grades in Human Science (biochemistry, anatomy, physiology)
- Grades in Clinical medicine 1,2,3
- Grades in Pharmacology 1,2,3
- End of Rotation Exam grades

This database will help guide the program’s curricular changes.

In the past, the program has relied on a review and SWOT analysis to support changes. One such change, based on poor scores in the clinical therapeutics task on the PACKRAT and PANCE resulted in re-organizing the pharmacology course from one 90-contact-hour course into three courses that are integrated into the clinical medicine course series. Results of the change will impact the class that will be graduating this November and will be evaluated.

Another change is the addition of a Transitional Practicum course at the end of the didactic year, prior to clinical rotations. Students were initially doing poorly on the end of rotation examinations. One of the causes was the over-reliance on power points and the inability to read material for content. The Transitional practicum is intended to address that deficiency. Results will be forthcoming in November.
School of Occupational Therapy  
TUN

a. Students’ actual experience of progression through the curriculum has been compared to the progression criteria outlined in the student handbook. Within the first two years of operation it was apparent that achievement criteria needed to be put into place. Historical data have been collected with each successive cohort that has passed through the occupational therapy curriculum. In 2008 success expectations were established including minimum GPA per semester and minimum number of grades below a certain level.

b. Benchmarks have been established along the way to enable faculty to monitor student success rate against established criteria. Each semester the students’ progression is assessed and analyzed according to progression criteria noted above, in addition to required achievement of benchmarks within the curriculum.

c. The two required three-month clinical placements had originally fallen at the very end of the students’ curriculum. In 2008 the two placements were placed in each of the two final semesters and six weeks of intensive integration courses were sandwiched in between them. An Integration of Learning course was developed to provide students with targeted time to process clinical information they experienced in community-based fieldwork internships and better prepare them for practice entry by the completion of the final fieldwork placement prior to graduation.

College of Education  
TUN

In the Multiple and Single Subject Credential Programs, most students submit Teaching Performance Assessments (TPAs), two per semester, in their second and third (final) semesters of the program. We keep detailed data on the assessment scores and pass rates of our students.

We made a significant improvement in the program this past year when we initiated a six-session seminar to instruct the students in successful completion of each TPA. The TPA Coordinator has reported improved pass rates overall, due to the Seminar.