Assessment in Academic Affairs

CSUCI values using assessment as a critical tool for creating a learning-centered organization. We began taking steps to implement assessment programs shortly after the first students arrived on campus. We recognize that assessment deals not only with student learning and development, but also with organizational effectiveness. Assessment requires incorporating the results back into decision-making for improvements in curriculum, organizational processes, and institutional climate. In this way we can ensure continuous quality improvement. The quality of excellence we aspire to should reflect our deliberate efforts to measure educational effectiveness, demonstrate and confirm accountability for external stakeholders, and thus support the educational mission of the institution.

Assessment during 2003-04 has taken place through the personal commitment of faculty, staff, and administrative leadership. The campus has spent the past year identifying objectives and outcomes, inventorying the campus for currently available data, and beginning to measure our educational effectiveness. Assessment in Academic Affairs has been exemplified through:

1. Pilot Assessment Studies
2. Mini-grants
3. Making plans for 5 yr. program reviews
4. Semi-formal changes in curriculum
5. Informal changes in individual classrooms

In addition, faculty have furthered a culture of assessment by sharing assessment stories at orientation and at other on-campus venues, engaging one another in on-going conversations about the nature of assessment, and through publishing articles and giving conference presentations about their assessment efforts at CSUCI.

2003-04 Pilot Assessment Studies

This work highlights the efforts of faculty who participated in the Pilot Assessment Studies project. The combination of limited resources and the need to jump start the assessment program in preparation for implementation of a systematic assessment program provided the impetus for the Pilot Assessment Studies project. Created a year and a half ago, the Director of Faculty Development made funds available for departments that wanted to do assessment projects. Specifically, funding was through re-assigned faculty time. Some of the volunteering faculty had no prior assessment experience, thus Assistant Professor Harley Baker acted in the role of technical assistant for those who requested assistance.

Assessment topics were chosen by the individual faculty participants. The assessment projects varied from the examination of specific knowledge and ability, to congruence with external program competencies, to student advising, to classroom instructional methods. The complete faculty reports are provided following the Executive Summary.
2004-05 Assessment Plans

For 2004-05, CSUCI plans on utilizing two approaches for its Academic Affairs assessment efforts. First, we will continue to support individual faculty assessment efforts. The Provost and Dean of Faculty have allotted re-assigned time for program areas. Program area chairs have specifically requested re-assigned time to be used in support of assessment in each of the programmatic areas. Additionally, funds for assessment are available through the Director of Faculty Development. The Faculty Development Advisory group is identifying a number of assessment projects to bring forward for funding. Also, the Director has suggested presenting a series of assessment workshops to assist faculty with their individual efforts.

Second, CSUCI has appointed Dennis Muraoka the Special Assistant for Assessment and has plans to implement a formal assessment structure through the Assessment Council. The Assessment Council will be comprised of Assessment Officers representing each of the main divisions of campus. The Assistant Provost, the Director of Institutional Research, and the Special Assistant to the President will serve as advisors. This formal structure will allow us to take several important steps:

- Create a unified and systematic assessment and evaluation design that reflects the institution’s mission and values
- Build on the data and assessment programs that are currently in place
- Begin development of global data bases that allow cross-sectional and longitudinal assessment
- Coordinate and leverage institutional efforts to maximize and support fully integrated institutional assessment
- Support the use of assessment data in decision-making to ensure gaps between promise and performance are examined and that changes are made to narrow those gaps

These steps will help CSUCI move toward increased congruence between our stated mission, purposes, and objectives and the actual outcomes of our programs and activities.
Executive Summary of Pilot Assessment Projects

Multiple Subjects Credential Program Assessment

Background. Led by Jeanne Grier, Assistant Professor of Education, faculty used portfolios to assess and measure student learning in the Multiple Subjects Credential Program. The Teacher Performance Expectations (TPEs) outlined by the California Commission on Teach Credentialing (CCTC) were used as a basis for the program portfolio but were not driven by them. Faculty identified four “Core Competency” pieces of which one was assessed. An assessment team was convened and developed the Portfolio Rubric and in May 2004 education faculty and supervisors reviewed 39 multiple subjects candidate portfolios.

Findings. Positive scores of students in the two categories of “Background, Family Behavior, Culture, Language” & “Approaches to Learning, Prior Knowledge, Abilities, Interest, Individual Differences” indicate students are receiving these program experiences and able to show their understanding of them. Three additional programs, Advanced Student Teacher in the Multiple Subjects Program, Initial Student Teachers in the Single Subject Program, and Student Teachers in the Education Specialist Program, were also assessed using a portfolio program based on the work of the Pilot Project.

Next Steps. The three remaining Core Competencies need to be analyzed into subordinate elements. The timing of the assessment work in terms of data collection and measurement impact the reliability of the results and will be considered in the future. Additional re-assigned time and administrative support are needed to sustain and grow further assessment efforts.

Directed Self Placement Assessment

Background. Harley Baker, Assistant Professor of Psychology, examined whether test-driven and self-placement models for introductory English classes agreed in their placement recommendations and if there were differences in these students based on how the classes differed. Students could choose English 102 Stretch Composition, part of a two course sequence, or Standard English 105 Composition and Rhetoric. After attending an orientation and given guidelines students chose the course they felt best suited their ability and needs. The assessment used CSUCI records, the CIRP Freshman Survey, and created a questionnaire based on several standardized self-rated tests dealing with writing and personality.

Findings. Self-based and test-based placement methods yield different placement results, with self-based placements consistent with their self-ratings of personality and ability. Students who self-placed in the standard English course had higher self-reported academic ability, creativity, public speaking ability and writing ability than students who self-placed in the stretch English course. There were also differences in their approaches to writing, with students in the standard English course more likely to employ a “deep writing” approach, and students in the stretch English course more likely to employ a “surface writing” approach. A brochure to help students determine which class is more
appropriate for them has been created based on the data and students characteristics found in the first survey.

Next Steps. Data collection is continuing. For the current year the survey scales will be re-evaluated to provide a more accurate model and teaching evaluations may be used as a co-variate. A longitudinal data base is planned that will provide the opportunity to compare student outcomes in writing courses and other courses based up their initial English course selection.

Peer Review Assessment
Background. William Wolfe, Professor of Computer Science, created web-based peer-review processes for Mathematics and Computer Science students. Students’ reviewed each of their classmate’s work and posted it to the web. The postings were anonymous, but each student reviewer knew the student they were reviewing. Additional reviewer comments were required when a student rated an assignment lower than 8 (on a 1-10 scale). Student reviews were compared to instructor reviews. Students were surveyed about how helpful they felt the peer review process was.

Findings. From the Mathematics class, the average peer reviews agreed with the instructor review and provided a method for more in-depth feedback to the student than offered by the instructor alone. While students felt the reviews were not easy to do for other students, they felt the feedback they received was fair and accurate, helped them learn multiple ways to solve a problem, and motivated them to do better work. This approach allowed students to learn from one another, compare their work with their classmates’, encourage class participation and foster an atmosphere of collaboration.

Next steps. To reduce student workload, specific problems will be selected for peer review, as opposed to assigning all problems. Both those being reviewed and the reviewers will remain anonymous. A more formal experimental design will be employed, with randomization of the assignments and more sophisticated statistical analysis.

Business Writing Assessment
Background. Ashish Vaidya, Professor of Economics, assessed the writing competency of students in two sections of BUS 499, the Capstone course. Students were assessed based on the Quality of Writing and on Analysis and Integration of writing. Two individual cases and one group case comprised the data for analysis. The analysis is based on a rubric developed by faculty.

Findings. The average Quality of Writing score was greater than 3 on a 4 point scale. The average Analysis and Integration score was lower, averaging between 2.3 and 2.7 for individual and group case analyses.

Next Steps. The Business Assessment Test (BAT), a CSU-wide assessment will be given in the Capstone course, but a comprehensive assessment plan for this area needs to be created and specific indicators for assessment identified. Additional performance
standards need to be determined as well as the budgetary resources needed to support further assessment efforts.

**Biology Laboratory Skills Assessment**  
*Background.* Nancy Mozingo, Assistant Professor of Biology, examined four courses: Principles of Organismal and Population Biology (BIOL 200); Principles of Cell and Molecular Biology (BIOL 201); Cell Physiology (BIOL 300); and Molecular Biology (BIOL 400), to assess whether students were given the opportunity to successfully master basic pipetting skills and microscopy procedures. One class, BIOL 300, was further analyzed to determine students’ level of skill in pipetting and microscopy. A check-sheet was developed and the instructor observed basic laboratory procedures during a lab practical.

*Findings.* A content analysis revealed that these courses as a group expose students to a wide variety of laboratory techniques. Students scored an average of 92.8 (out of 100) on pipetting skills. Scores for microscopy were lower, averaging 76.6.

*Next steps:* Assessment earlier in the semester will take place to allow increased time to structure activities to improve student skill level. Additionally, pre and post-test measures will be incorporated into further assessments to better ascertain student learning. Peer-assistance will be considered as a tool to help lower rated students gain proficiency.