

**Middle States Review**  
**Student Outcomes Assessment**  
**NTID**

**February 24, 2006**

***Executive Summary***

Student outcomes assessment became a priority for NTID following our last Middle States Review in 1997. Significant resources and technical support were provided by the college leading to outcomes assessment plans for academic programs, general education (arts and sciences) and academic support. This first effort in Outcomes Assessment has been a learning process. Our experience to date places us in a strong position to continue to improve our assessment plans and procedures with the goal of having a positive impact on curriculum design, instruction and, most importantly, student learning.

**Process of Developing Student Outcomes Assessment Plans**

**Pilot/Study Team**

In 1998, a steering committee was established to begin the process of developing student learning outcomes for academic programs and general education. A pilot project was established in 2001-2002 with one department that accepted the challenge of being the pioneer in our college. A study team was formed composed of faculty teaching the technical courses, faculty teaching the general education component of the curriculum, and administrators. Faculty and administrators in this pilot group attended AAHE Conferences on Outcomes Assessment to become familiar with the goals and processes of Student Outcomes Assessment. The effort was led by the Associate Dean and after

preliminary plans were formulated and piloted in 2001-2002, an expert in the field, Thomas Angelo, was invited to campus for a one-day consultation on our pilot efforts.

### Development of Student Outcomes Assessment Plans Across the College

The results of the pilot were shared with all academic chairs and each department created a small team of individuals to develop plans for each academic program, general education and academic support. Regular meetings were held with all faculty members working on Outcomes Assessment. The Associate Dean and a faculty member skilled in educational assessment supported each working team in developing their outcomes assessment plans. All departments submitted preliminary plans by June, 2002. From academic years 2002-2005, faculty revised plans, developed and piloted assessment measures and began collecting data. The Associate Dean also created a website of materials with support from technology specialists

<http://www.ntid.rit.edu/VPandDean/soa/pages/welcome.html> .

To align the course outlines with the philosophy and goals of Student Outcomes Assessment, all course outlines were reformatted to include student learning outcomes and associated assessment methods. Twelve departments have completed this process. Five departments have 1-3 courses to complete.

During academic year 2005-2006, as the time for reporting results approached, a faculty member experienced in the pilot process accepted a 50% assignment supporting outcomes assessment and the development of new curriculum proposals working with the Associate Dean.

**Question #1 Do all academic programs have appropriate goals and assessment plans based on student learning outcomes?**

All academic programs, general education (arts and sciences) and academic support programs in the college have Outcomes Assessment Plans. Each plan identifies critical outcomes, performance benchmarks and assessment instruments. See the attached chart for a list of programs and a summary of the progress of each program in developing and implementing assessment plans.

Seven academic programs have progressed to the point of collecting data (Accounting Technology, American Sign Language – English Interpretation, Administrative Support Technology, Art and Computer Design, Digital Imaging and Publishing Technology, Master of Science in Secondary Education, and Laboratory Science Technology). Four academic programs have completed data collection (Accounting Technology, Administrative Support Technology, Applied Art and Computer Design, and Digital Imaging and Publishing Technology), and five programs (Accounting Technology, American Sign Language – English Interpretation, Art and Computer Design, and Laboratory Science Technology, Master of Science in Secondary Education) have used the data to make revisions in instruction, curriculum or recruitment.

NTID also initiated a strategic visioning process in AY 2003-2004 which resulted in decisions to modify academic programs. Recommendations for changes in academic programs were based on data collected during that process related to: changes in the entry requirements for jobs in technical fields; changing student demographics; and an analysis of our competitive risks and advantages. Five programs (Automation Technologies, Applied Computer Technology, Computer Integrated Machining Technology, Applied

Optical Technology, and Computer Aided Drafting Technology) made major modifications prior to the implementation of their Outcomes Assessment Plans. The proposed programs developed new curriculum as recommended by the Strategic Vision for 2010 and as part of that process developed new Outcomes Assessment Plans that are now in the curriculum review process. These five programs will post new Outcomes Assessment Plans and begin to collect data in 2006-2007 academic year.

For the general education component of the curriculum, faculty identified three general education skills for assessment: English literacy, critical thinking and communication. Outcomes Assessment Plans are developed for all three areas. Data collection and analysis is in process for English literacy and critical thinking. Communication courses and outcome data will be required for AOS students in AY 2006-2007 and data collection will begin.

Several academic support programs (First Year Experiences, Counseling Services and Student Life) ran into difficulties implementing their initial plans because they could not access the data needed. These programs revised their initial plans significantly and identified data that could be collected and analyzed. Speech/language and audiological services developed assessment plans, identified measures and began piloting data collection in AY 05-06.

**Question #2 Describe what evidence is used and how this evidence leads to continuous improvement of educational practices, advising, teaching and learning.**

Much dialogue has occurred at the program level concerning what we want students to know and be able to do upon graduation. Engagement in the outcomes assessment process has led to curricular and instructional changes in some programs even

before plans were fully implemented. For example, as a result of planning to assess communication skills as part of the general education outcomes, it became clear that a communication course should be required in all AOS academic programs and this change was made in all course masks. Additionally, several science and mathematics courses placed greater attention on reading and writing to incorporate English outcomes assessment.

Seven of thirteen academic programs have progressed to collecting data, and five have used data to make revisions in the delivery of their programs. These revisions are quite modest given our developing skills in writing meaningful, measurable learning outcomes. Several Art and Computer Design courses have added writing assignments based on data from English outcomes included in their assessment plan. Laboratory Science Technology identified the need to emphasize safety as a result of piloting outcomes assessment measures. The Master of Science in Secondary Education Program has incorporated additional micro-teaching opportunities in their curriculum, expanded teaching resources and distributed certification objectives to faculty in their efforts to enhance student learning. The Interpreting Program found that responses on the Alumni Satisfaction Survey were below the benchmark. Graduates reported that they needed to be better prepared for entry to their first jobs; therefore, the faculty is examining the curriculum and the delivery of instruction to identify opportunities to enhance students' graduation skills. Accounting Technology has incorporated student satisfaction results in marketing and recruitment materials. Although students reached the benchmark for outcomes assessment, the Accounting Technology faculty plan to examine individual

items for opportunities to introduce new strategies to improve instruction in accounting courses.

Administrative Support Technology students exceeded the benchmarks set for outcomes assessment. To check the validity of this result, the faculty will examine the grading policy for the possibility of grade inflation. They will also review industry standards to validate their benchmarks for assessment. Digital Imaging and Publishing Technology reported results of two years of assessment. Faculty plan to review results in light of probable departmental curriculum restructuring.

### **Strengths**

Every academic program has a plan! This is a major accomplishment. There was strong administrative and IT support during the process. Most programs see the potential of assessment even though the follow through is difficult.

Emphasis on embedded assessment has promoted tracking and pooling of results from assessments that were already occurring in some courses. This has created a new way of looking at the value of Capstone experiences, portfolios, papers, presentations, tests and projects. That is, they are seen as a measure of the success of the program itself, not just of individual students.

### **Challenges**

Despite the success in engaging all academic departments in the process of developing outcome assessment plans, some faculty and chairs feel that the effort is forced by the accreditation process and the needs of administrators to justify budget. Some do not embrace the intrinsic value of staying engaged with outcomes assessment on

an ongoing basis to enhance the quality of curriculum and instruction. Some departments see outcomes assessment as an add-on to their workload.

There seems to be a disconnect between the work that was done to embed student learning outcomes into course outlines and the outcomes assessment plans developed at the program level. Departments are not seeing how student learning outcomes in courses might be related to program level assessment. Finally, some faculty do not seem to see the connection between assessing student learning at the course and program levels and the scholarship of teaching and learning. RIT has made enhancement of scholarly activity a mandate for all faculty utilizing the expanded definition of scholarship as first proposed by Boyer (1990). Student Outcomes Assessment done well has the potential to contribute simultaneously to improved learning for students and improved qualifications for tenure and promotion for faculty by giving them evidence of outstanding teaching and contributions to the scholarship of teaching and learning.

The major challenge remains selecting and writing student learning outcomes that really matter to student learning and teaching that are measurable. Finally, the measures chosen need to be easy to collect and analyze.

**Plans for Winter 20053- Fall, 20061**

- Complete data collection
- Provide a forum on Outcomes Assessment to discuss use of results with all chairs and provide guidance/support
- Work with Faculty to follow through on the use of results
- Prepare second report for MSA

## **Future Plans**

It is clear that for Outcomes Assessment to continue, it must remain a priority supported by the college. To date, Outcomes Assessment in our college has yielded only a few examples of exciting, useful results that would intrinsically motivate faculty and department chairs to continue.

We need to:

- Refine the Learning Outcomes so that they are truly useful to the programs and the students.
- Simplify some of the plans so there is time and energy to implement on an ongoing basis.
- Set up a user-friendly, centralized database system for accurate data entry, retrieval and reporting
- Facilitate further discussion on how to analyze the data and use the data to make decisions about curriculum and instruction.
- Continue to provide IT support.
- Advocate for full-time leadership at the University level for Outcomes Assessment

Work Cited:

Boyer, E.L. *Scholarship Reconsidered: Priorities of the Professoriate*. Princeton, N.J.; Carnegie Foundation for the Advancement of Teaching, 1990