

CHAPTER 8:

INSTITUTIONAL ASSESSMENT AND ASSESSMENT OF STUDENT LEARNING

Standard 7: The institution has developed and implemented an assessment process that evaluates its overall effectiveness in achieving its mission and goals and its compliance with accreditation standards.

Standard 14: Assessment of student learning demonstrates that, at graduation, or other appropriate points, the institution's students have knowledge, skills, and competencies consistent with institutional and appropriate higher education goals.

INTRODUCTION

At Queensborough Community College (QCC), assessment is an integral component of the overall process of institutional renewal that has been described in chapter 2. Assessment incorporates institutional assessment, both CUNY-wide and college-specific, and assessment of student learning at the course and program level. These feed back into the college's processes of institutional renewal through departmental annual reports, program reviews, and the overall strategic planning process. The strategic planning process is informed both by the *CUNY Master Plan* and by the college's mission and long-term planning goals. (See Appendices 1 and 8 for reports and templates).

Institutional assessment at QCC includes assessment structures and reporting mechanisms dictated by CUNY. These include academic issues like placement and exit-from-remediation data to which the college must respond, test results from the CUNY Proficiency Examination (CPE), retention, graduation, and transfer data and fiscal issues like fund raising and support. The year's work is summarized in an annual Completion Report (see Appendix 1) that aligns CUNY's master plan and the college's strategic plan with outcomes across departments, programs, and divisions. As with all CUNY colleges, QCC must meet the Performance Management Process (PMP) indicators or targets established by CUNY and, in some cases, negotiated between CUNY and the college. The annual process culminates in the presentation of the Completion Report by the college president to the university chancellor during the summer, at which the college and its senior administration are assessed according to the indicators and the success of the institution in meeting its and CUNY's goals. The assessment of outcomes leads back into the strategic planning process, which begins again in the fall semester. This cyclical process is central to the institutional renewal referred to above.

At the college level, assessment structures and reporting mechanisms include program review, the departmental annual report, and the assessment database (see Appendix 8). Since the last Middle States review, QCC has changed from a departmental to program review process, which measures student progress and focuses on the collaboration of departments to support student success. Beginning in 2004-2005, the college redesigned the academic program review process, which includes general education assessment, assessment of curriculum-specific student learning outcomes, educational objectives, and goals. (For the program review schedule, see Appendix 8.)

Departments are responsible for submitting annual reports that detail their activities and provide an evaluation of the effectiveness of their services. Revised in spring 2008, this report, in a section labeled assessment, includes the procedures in place for evaluating how effective the department/office is in meeting the College's mission and relevant strategic planning goals; major conclusions of internal or external evaluations and of the evaluation of the department's achievement

of its goals and objectives. The resulting action plans, as well as the preparation and articulation of objectives for the upcoming academic year, which are developed in consonance with the College's mission, goals, and strategic plan, serve as the foundation for ongoing self-examination in the following year and as the reference for subsequent evaluations of performance and the development, modification, and adoption of the next generation of goals, objectives, action plans, and assessment.

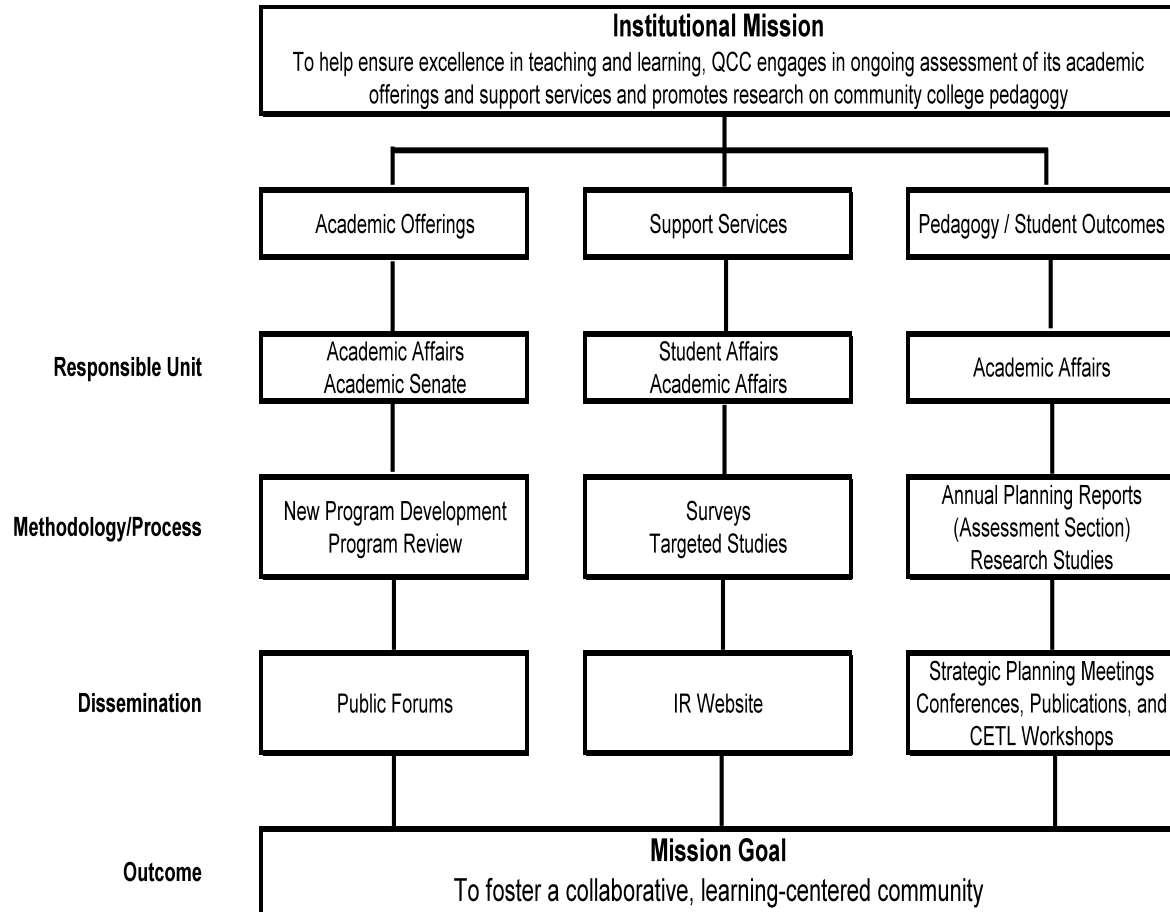
As part of a comprehensive assessment process, the college also maintains an extensive assessment database containing data for each department on course activities and objectives, curricular objectives, educational objectives, general education activities and objectives, and educational context. Each course assessment ends with a summary of assessment results and a plan of action for each desired student learning outcome. Information gleaned from these assessments is used to refine curricula and add new courses.

The levels of assessment described above also lead to program revision and development, course revision, and course development. Program development is guided by the *New Program Feasibility Study* (see Appendix 8); departments receive guidance and support from Academic Affairs and Institutional Research. Program or course revision or development reflects changing student needs and changes in the field. Proposals are submitted to the college's curriculum committee, which in turn submits proposals for approval to the Academic Senate. This process ensures faculty ownership of the curriculum and college-wide oversight of academic rigor.

Throughout these efforts, much data has been generated from both college-wide and departmental-level assessments, reflecting a growing commitment to assessment college-wide. QCC does recognize that these efforts have also resulted in the development of various student learning assessment efforts independent of each other, sometimes duplicating efforts or displaying inconsistent rigor or utility. To a certain extent, this is reasonable and even desirable. For example, certain departments, programs, or specialized programs are assessed both by the College and by such outside agencies as the State Education Department or the Association of Collegiate Business Schools and Programs (Business), the National League for Nursing Accrediting Commission (Nursing), and the Technology Accreditation Commission of the Accreditation Board of Engineering Technology (technology programs). Though the outside accrediting agencies may have different assessment criteria, the results of the reviews are action plans that feed back into the development of the Strategic Plan. At the same time, greater effort is needed to disseminate and use the data collected across departments or areas of the College for the purposes of continuous improvement at the course and program level. In 2007, a Special Committee of the Academic Senate was formed to review the Educational Objectives, and a revised statement, along with a list of sample learning outcomes for each objective, was adopted by the Academic Senate (see Appendix 1). In turn, these guidelines inform the learning objectives and outcomes assessments of all programs and courses.

The new Academy initiative, which has been discussed in the Foreword and elsewhere, will require an assessment protocol of its own, complementary to what is already in place, and is being articulated at the current time, to be completed during the spring 2009 semester.

ASSESSMENT AT A GLANCE



INSTITUTIONAL ASSESSMENT

QCC’s annual strategic plan encompasses enrollment projections, budgetary and facilities needs, academic planning, student needs and services, and the expectations of the college community. The plan is based on departmental, program and division outcomes; retention, graduation, transfer data and survey results; placement, exit-from-remediation, and graduation/transfer examination pass rates (CUNY Proficiency Examination); and the CUNY master plan and performance management process indicators. As such, this document, which guides the efforts, budget allocations, and direction of the College throughout the year, must balance the University vision with the College’s particular needs.

Guiding the College is the mission statement, which encapsulates the College’s vision, goals, and nature, providing the philosophical foundation for all College endeavors. In 2005, the College sought to update its mission statement to better reflect and guide the present QCC experience. Faculty, staff and administration collaborated to craft a new document, one that would move from an institution-centered description of services to a student-centered philosophy of education, with an emphasis on partnership of students, involvement of community stakeholders, and academic excellence in the

preparation of students for transfer to senior colleges and into their careers. The resulting statement (see Appendix 1) demonstrates the commitment of the College to “excellence in teaching and learning and to the development of the whole individual in an environment that promotes intellectual inquiry, global awareness, and lifelong active learning.”

An issue brought to the forefront during the process of developing the new mission statement was the necessity of finding an appropriate balance between the University’s goals and QCC’s particular mission, so that the College’s mission is adequately reflected in the annual strategic plan. While QCC is part of the larger university system and must therefore be responsive to its direction, its identity must not be lost in the process.

Assessment Process

The QCC assessment process involves all constituents: students, faculty, and administration. Performance may be assessed at the individual, group, and program levels. Depending on the role of each constituent, different methodologies drive the process, including performance indicators, written evaluations, the college mission statement, general educational objectives, and the strategic plan. For example, the importance of *educational objectives* in creating a method of assessment for the curriculum through the *syllabus*, *course objectives*, and *curricular objectives* shows developmentally how assessment occurs. But educational objectives are also important in other mechanisms of assessment throughout the college.

The assessment process begins at the outset of students’ participation in their QCC career through placement examinations in reading, writing and math, followed by exit-from-remediation examinations in those areas, designed to measure readiness to advance into college-level work. As they progress at the college, their performance in each course is assessed, as well as their performance and progress in their chosen program of study as a whole. Near the end of their QCC career, they are again assessed by graduation-related measures such as GPA and satisfactory completion of major and general education requirements, as well as by the university-wide graduation/transfer examination established by the CUNY Board of Trustees in 1997: the CUNY Proficiency Examination (CPE) or “rising junior” examination, which must be passed by all students who wish to graduate from a community college or to progress beyond 60 credits at any CUNY college. This examination is a three-hour test designed to assess a student’s ability to understand and think critically about ideas and information in text and graph formats and to write clearly, logically, and correctly. The *QCC Strategic Plan 2008-2009* (see Appendix 1) includes gradually increasing target pass rates for students taking the CPE: The target pass rate in 2007-2008 was 92.6 percent, and the achieved pass rate for the same year was 92.1 percent; the target for 2008-2009 is 93.1 percent.

Faculty are critical to the success of the college and to the success of student outcomes. Both faculty and staff are evaluated annually by their chairs or department heads, and these evaluations are used to provide a basis for decisions on reappointments, tenure, and promotions; to encourage professional performance and growth; and to maintain academic and professional standards of excellence. Evaluations of non-teaching instructional staff are held by their chair, supervisor, or office head at least once each year. (See Appendix 8: Non-teaching Instruction Staff Evaluation Form. For more detail about faculty and staff, see chapter 5.)

The College’s administration, flowing downward from the CUNY Board of Trustees to the president, vice presidents, deans, and assistant deans, is evaluated on the basis of the CUNY master plan (a four-year map of the University’s vision and direction, as required by state law), an annual CUNY review of goals and targets (quantitative performance management process indicators) that drive toward the university-wide priorities of the master plan, and fulfillment of the College’s Mission and Strategic Plan in the annual Completion Report (see Appendix 1).

Curriculum is assessed most broadly according to the college's mission statement and strategic plan through the program review process (see Appendix 8: Academic Program Review template), which includes how well it meets general education and curricular objectives; and, at the narrowest level, to individual course objectives and syllabuses (see Appendix 8: QCC Syllabus template). Academic programs, departments, and non-teaching departments are assessed according to the college's mission statement and strategic plan, but academic programs and departments may also face outside accrediting reviews by professional associations. Academic programs periodically undergo rigorous reviews; academic and non-teaching departments provide detailed annual reports of their activities and evaluation of those activities to Academic Affairs or to Student Affairs, as appropriate.

Program Review

All departments and programs have instituted or are in the process of instituting assessments of their progress in achieving general education and curricular objectives. In the past, general education, curricular and individual course objectives were strongly linked at the department level in the individual course assessment process, which was piloted during 2003-2004. Individual course assessments listed learning objectives, general education objectives, student learning outcomes, specific assignments, and specific measurements for the assessment of learning (see Appendix 8 for all program review templates). In 2004-2005, a revised academic program review process was implemented, embedding both general education assessment and assessment of curriculum-specific student learning outcomes. In 2005, educational objectives and goals were incorporated into program review and the College's overall assessment plan.

The college conducts academic program reviews for each program every five to six years as a means of informing the strategic planning process, keeping programs up to date, assessing and improving student performance, and improving the accountability of programs in terms of meeting general education and other objectives. Reviews cover how each program supports the college's mission; faculty and staff; curriculum, enrollments, advising and outcomes; resources; and future priorities.

Academic Program Review

A faculty steering committee is charged with overseeing each academic program review. Because the college has turned from departmental to program reviews, which may span departments, the process has provided many more opportunities for inter-departmental discussion. Using data generated by the Office of Institutional Research (OIRA), including data on student outcomes, the committee fills out the academic program review template. Academic Affairs oversees information generated for inclusion by academic support programs. A draft of the completed program review is submitted to Academic Affairs. After this review, open hearings are held for a campus community review. When the report is finished, the steering committee selects external reviewers to assess the document, visit the college, and meet with the president, vice presidents, and deans. Then, the external reviewers submit a report of their findings to Academic Affairs. The steering committee writes a response and action plan and meets with Academic Affairs and the president to determine the response and action plan to be implemented. These parts are integrated into the College's strategic plan.

Outside Agency Reviews

Several QCC programs are accredited by outside agencies. In these cases, the periodic outside accreditation reviews substitute for the QCC academic program reviews. The full self-study reports for these reaccreditations are on file in the respective departments, in Academic Affairs, and in the Library archives. The Computer Engineering Technology, Electronic Engineering Technology, Laser and Fiber Optics Engineering Technology, Mechanical Engineering Technology are accredited every

six years by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC of ABET). The review covers program educational objectives and outcomes, assessment and evaluation, program characteristics, faculty, facilities, institutional and external support, and an institutional profile. The Nursing program is accredited every eight years by the National League for Nursing Accreditation Commission (NLNAC). The review covers mission and administrative capacity, faculty and staff, student services and policies, curriculum, resources, and outcomes. Business programs are accredited every 10 years by the Association of Collegiate Business Schools and Programs (ACBSP). The review covers leadership; strategic planning; student, stakeholder, and market focus; measurement, analysis, and knowledge management; faculty and staff human resources practices; and curriculum process management.

Currently, all programs either have been reviewed (internally or by external agencies) within the past three or four years or are currently undergoing review. The Liberal Arts and Sciences and Childhood Education program, the Day Care Assistant certificate program, and the Massage Therapy program will be reviewed after the current Middle States reaccreditation self-study process has concluded.¹

Non-teaching Departments and Programs

Every year, each non-teaching department/program is required to submit Year-end (or planning) Reports (see Appendix 1) to its supervising department. These planning reports, along with faculty and staff development offerings through the Center for Excellence in Teaching and Learning (see Appendix 6 for CETL calendar), help to ensure that non-teaching programs and departments promote the college's curricular and general education objectives. In turn, elements of each office's individual reports may become integrated into the College's strategic plan. A preliminary draft of the strategic plan is presented for feedback from faculty, administrators, and students; suggestions are incorporated into a more final version, which is vetted at a series of open hearings for the entire campus community; and a final version is then prepared, which guides the college for the upcoming year.

The term *non-teaching departments* refers to campus programs and grant-funded projects that exist separately from academic departments. Some examples of non-teaching departments are the Campus Learning Center and Campus Writing Center, both of which provide tutoring to students; ASAP (Accelerated Study in Associate Programs), a CUNY-funded program that helps eligible full-time students complete their degrees on time; College Discovery; and the Office of Academic Advisement. Assessment results from some non-teaching departments are shared campus-wide and are posted on the departments' websites. In addition, all assessment results are submitted to Academic or Student Affairs, as appropriate, in the form of annual reports and more informal updates; to the director of Coordinated Undergraduate Education (CUE), under whom a wide variety of initiatives are consolidated; and to the University and in some cases to the NYSED in interim and annual Perkins reports. At the institutional level, assessment results, including the results of the Spring 2007 *Community College Survey of Student Engagement*, the triennial *Student Experience Survey*, graduation and post graduation student surveys, and summaries of program success factors, are posted on OAA and OIRA websites, and relevant findings are recorded in the College's Strategic Plan. The Strategic Plan is presented at a series of open hearings by the president to faculty, HEOs, and students and then to the entire campus to ensure opportunity for college-wide input in the planning process.

Findings and Analysis

At the heart of institutional assessment at QCC are the annual Completion Report and program review. The Completion Report indicates whether the institution has met its goals and targets for the preceding academic year; these are goals and targets set both by the college and by CUNY. They

¹ Some representative program reviews appear in Appendix 1.

include data about exit-from-remediation results, CPE results (the “rising junior” examination), programmatic results like graduation rates and retention among curricula, among other items. These outcomes are used in the development of the subsequent strategic plan.

Program review encompasses all three kinds of assessment. It uses institutional assessment to help place a curriculum within its proper context. It assesses the program outcomes themselves—e.g., graduation rates, retention rates, comparisons with other institutions, articulation with other colleges, and job attainment. It assesses student learning—course and program assessments of the degree to which students have met the educational objectives of the college at large and the curricular and specific course objectives. In addition to program reviews initiated at the institution, several programs undergo reviews by outside accrediting agencies. The Computer Engineering Technology, Electronic Engineering Technology, Laser and Fiber Optics Engineering Technology, and Mechanical Engineering Technology are accredited by TAC of ABET. The Nursing program is accredited by NLNAC. Business programs are accredited by ACBSP. All three agencies hold these programs accountable to the highest standards of program integrity and self-assessment, and QCC has received full reaccreditation from all three.

Although the college’s budgeting process is not informed directly by any specific set of dedicated assessment protocols or rubrics, it is driven by the Strategic Plan, which is enormously responsive to and built on extensive assessment data and analysis. The budget requests for academic and non-teaching departments, which shape the final budget, are made to the appropriate deans as well as to the Office of Finance and Administration, and are grounded, in turn, on the numerous assessment protocols developed by the various departments and agencies of the college, including performance-based and satisfaction-based evaluations. These requests, submitted annually, represent both a distillation and a justification of anticipated college-wide needs for the upcoming year. Since CUNY budgets are constrained by the fiscal and political realities of New York City and often not finalized until the end of the summer, the process as a rule favors those items developed through the strategic planning process and formalized in the Strategic Plan.

Although this process seeks to assure that the college priorities and resources develop out of assessment strategies that identify both short- and long-term needs and go to support the vision identified in the Strategic Plan, some gaps exist in the evaluation of program and department requirements and, as a consequence, some needs may be overlooked. A survey of department chairs and program heads revealed that, at this juncture, assessment is not consistently used in preparing annual budget requests. The reasons vary. Some grant-funded non-teaching programs are on multi-year cycles rather than annual, and, as new initiatives, have not yet reached a point where assessments over time are available for utilization. Several department chairs stated that enrollment, course offerings, resources on hand, and age of equipment were the only considerations currently used by them to determine budget requests and allocations; other programs that generate revenue (e.g., the Port-of-Entry English language skills program) use only revenue and expenditures of the previous year and projected new expenditures. Still others, however, routinely take assessments into account as part of their planning process. The Nursing Department uses comments from student evaluations as an additional check on how well they are keeping current with innovations in clinical technology, which may impact budget requests. The College Science and Technology Entry Program (CSTEP), a grant-funded program, is assessed by an outside evaluator based on guidelines set forth by their funder, the New York State Education Department, with the results factored into future funding.

It is clear that individual departments or programs do not consistently use assessment data to guide their own budget requests or allocations, though modifications not requiring additional funds may be made according to assessment results. Part of establishing a culture of assessment is to embed the use of assessment data, as appropriate to the discipline and program, into the process of budgeting

resources. In this way, initiatives that compete for limited College funds can demonstrate the need for and efficacy of their approaches or proposed modifications. At the department level, a greater effort by both academic and non-teaching departments and programs to collect assessment information consistently, and the better organization of that information into a comprehensive database, would better inform decisions about annual budgets.

While OIRA provides information for decision making and planning, it also initiates research and evaluation studies for assessing institutional effectiveness, programs evaluation, and student learning outcomes; gathers, analyzes, and reports information required by CUNY, federal, state, and accrediting agencies; and collaborates with administrators, faculty, and staff about research design, instrument development, data analysis, and other related research topics. Affected by budget constraints, the office is currently understaffed.

The Conference of the College, though an excellent opportunity to discuss the purpose, design, and utilization of assessment, has not yet been utilized for this purpose, focusing primarily on successful pedagogical strategies. The conference, jointly planned by the Faculty Executive Committee and Academic Affairs, provides an opportunity for the college community, principally faculty, to discuss issues concerning teaching and learning. Faculty provide feedback through questionnaires, which are used by the planning committee in developing the next conference. As a result of this responsiveness to faculty interests and concerns, the number attending the conference each year has increased. The chair of the Faculty Executive Committee notes that the conference has not been devoted to discussions directly affecting assessment in the past. Considering the scope of its participation, the conference could be a valuable forum for the discussion of assessment on campus.

Strengths

- The College's mission statement was revised to reflect a student-centered philosophy of education, emphasizing partnered learning, involvement of community stakeholders, and academic excellence in the preparation of students for transfer to senior colleges and into careers.
- The College's course assessments have been integrated into a comprehensive assessment process that accounts for general education and assessment of curricular student learning outcomes.
- Development of each year's Strategic Plan includes a series of open hearings in which feedback is welcome from faculty, administrators, staff, and students.

Weaknesses and/or Concerns

- The Conference of the College has not yet been utilized to discuss assessment issues.
- Assessment data is not consistently used in the preparation of annual budget requests or in the process of allocating funds.
- Understaffing of the Office of Institutional Research and Assessment is a significant obstacle to full support of the wide range of research and evaluation studies, data collection and analysis for funders, and collaboration with administrators, faculty, and staff on research-related topics.

ASSESSMENT OF STUDENT LEARNING

Assessment is a continual process of establishing clear, measurable, expected outcomes of student learning; systematically gathering, analyzing, and interpreting evidence to determine how well performance matches those expectations; and using the resulting information to understand and improve student learning throughout the College. In accordance with the College's mission and general education objectives, student learning is understood to include the knowledge, skills, attitudes, and personal development attained through curricular, co-curricular, and out-of-class learning experiences. QCC is dedicated to the ongoing assessment of student learning both to honor

the institutional commitment to academic excellence and to provide credible answers to legitimate questions about student learning that arise from all stakeholders: peers, policy makers, and the public.

Assessment approaches differ due to the complexity of the educational process and the diversity of learning environments throughout the College but are collaborative endeavors involving faculty, staff, administrators, and students, encompassing the development of assessment policies, tools and activities; design of academic program assessments and use of the results; professional development on assessment topics; and adequate resources to conduct necessary assessments. Through various sources, especially committees and group meetings, faculty consider themselves well informed of the goals of the college, the data collected, and their recommendations for improvements in teaching and learning, though staff rate themselves as more familiar with the College's mission and more likely to take it into account in decision-making (see Appendix 4 for the faculty and staff surveys). Aiding in this effort will be the new University-wide initiative *CUNYfirst* (*CUNY Fully Integrated Resources and Services Tool*), which will implement a single, integrated information system on all CUNY campuses over the next five years, enabling greater and more efficient sharing of data University-wide. QCC has been selected as a vanguard college, aiding in the development and piloting of the new system starting July 1, 2008.

Departmental meetings typically include discussions regarding data and possible approaches to modifying teaching based on that data. All faculty are evaluated by students (the form has been revamped by faculty, been approved by the Faculty Senate, and been used), non-tenured faculty are observed by colleagues and given feedback, and students have the opportunity to provide input regarding faculty to program coordinators. Because of tenure and academic freedom issues, however, several have noted that, ultimately, faculty have the power to choose what they want to incorporate into their classes or to ignore most of the recommendations completely. While many faculty members are interested in using assessment data to inform their decision-making about the courses they teach, the *Faculty Survey Results 2008* showed that faculty do not necessarily take such data into account. On a scale of 1 (strongly disagree) to 4 (strongly agree), full-time faculty averaged 2.81 in response to the statement *I use the results of assessments of student learning outcomes to inform my own teaching* (question 37). Adjuncts rated themselves higher, at 3.1.

In the end, the implementation of action plans based on research and assessment is in the relatively free hands of faculty and in the hands of professional staff who, lacking either tenure or academic freedom, often operate under greater constraints.

Findings and Analysis

Programs and Initiatives

Both faculty and staff share the goal of improved student learning and work together to achieve it. One striking example of this collaboration is the development of the College's freshman academy initiative. Currently, two freshman academies exist: the Education Academy and the Technology Academy, but full implementation of the concept is evolving and will be further fleshed out with faculty input at the October 2008 Conference of the College. By fall 2009, each full-time, first-year student will be placed in one of six freshman academies. These freshman academies are intended to help students identify with an area of study (Education, Fine and Performing Arts, Business, Liberal Arts and Sciences, Health Sciences, or Science/Technology/Electronics/Mathematics) and to help students integrate socially at the College. Each student will participate in at least two "High-Impact Learning Strategies" like milestone courses, e-portfolio, learning communities, service learning, and writing-intensive classes, all of which address the College's General Education Objectives. The effect of these strategies on retention, persistence, and time-to-degree will be tracked through the Office of Academic Affairs and the Office of Student Affairs. E-portfolios are envisioned as playing a

supporting role in freshman academies. QCC has recently signed a contract with Epsilon to develop an e-portfolio system offering more features than previous platforms. E-portfolios will provide students with an electronic archive where they can post their academic and career-related work for job and college transfer applications.

In other programs and initiatives, there is great variation in the extent to which data from multiple sources have been collected, analyzed, and applied, as well as in the levels of rigor of the data utilized. Some have primarily relied on case-by-case, qualitative data on students (e.g., CUNY Language Immersion Program, and College Discovery), while others have developed extensive models and programs of standards-based data collection, interpretation, and result-based actions (e.g., Computer Engineering Technology, Laser and Fiber Optics Engineering Technology, and Nursing).

The Coordinated Undergraduate Experience (CUE) has been instrumental in providing opportunities for assessment of teaching and learning. One such initiative under CUE is the Course Portfolio Project, which allow faculty members to reflect on the goals and design of a course, as well as the teaching and learning that occurs in that course. These portfolios are evidence of the high caliber of scholarship of QCC faculty. CUE supports the development of course portfolios by providing stipends for faculty to “attend a series of workshops and create a web-based portfolio that represents course goals, learning objectives, assignments, assessment, and student achievement in a particular course they teach, as well as written reflections on the effectiveness of various course components” (*CUE Proposal 2008-2009*). Nine faculty members received such stipends in spring 2008.

Campaign for Student Success indicators for the CUNY goal to *Improve Student Success* were identified in the *2006-2007 Strategic Plan*. Although some preliminary assessment has begun, it is difficult to evaluate the meaning of the numbers without trended data for at least three years; therefore, monitoring is continuing. Since fall 2004, pass rates on basic skills tests following remediation/ESL sequences have declined despite the efforts of the faculty. In response, three task forces were formed in fall 2006 on mathematics remediation, reading/writing, and ESL. Strategies implemented include an additional laboratory hour per week in MA 005 and BE ESL courses, review of failed ACT essays by Basic Skills faculty to improve course placement, and a Cornerstone Reading/Writing Alignment project. In both 2006 and 2007, the Reading and Writing task force surveyed faculty in entry-level courses to identify significant gaps between students’ actual reading abilities and their instructors’ reading assignments and expectations in credit-bearing classes. A recommendation emanating from the spring 2006 report of the task force was to provide faculty development opportunities on how students learn, how faculty can identify and intervene in student reading and writing problems, and how students develop analytical reading and writing skills. In response, CETL has worked with Basic Educational Skills Department reading faculty and consulted with an associate professor of psychology and education from Teacher’s College, Columbia University, to design Reading Across the Curriculum professional development workshops held in fall 2007 and winter 2008. These nine-hour workshops, focusing on the relationship between the faculty members’ reading assignments and learning objectives, were attended by 16 professors from nine departments. Each professor developed assessment activities for each of his or her assignments, and then designed activities to assist students with the assignments. Data collected on student performance was analyzed this past summer to inform future professional development workshops as well as to design reading instruction across the curriculum. Preliminary results show that reading exit scores did improve in fall 2007, and evaluation of these strategies is ongoing.

One data source that almost all departments have utilized to analyze the effectiveness of their operation and take action based on the results has been student surveys, including the *Student Experience Survey* (SES), which is submitted to the institution, as well as internally designed surveys given by individual departments/programs. For example:

- Evaluation of student satisfaction is taken into consideration in assessing the effectiveness of the delivery of general education.
- Every year, the Departments of Electrical and Computer Engineering Technology (ECET), Mechanical Engineering Technology and Design Drafting (METDD), and Biological Sciences and Geology conduct graduate and student surveys and look at grades, enrollment, employment success, and transfers to senior colleges.
- The Social Sciences Department, among others, uses faculty evaluation surveys in considerations of the reappointment and tenure of faculty.
- To assess student preparedness for the job market, the Nursing Department mails out surveys to former students six months after graduation and makes phone calls to ensure an adequate response rate of at least 50 percent. The department also uses survey results from currently enrolled students to help make critical decisions regarding course content, textbooks used, and clinical sites. As a result of the surveys, the Nursing Department discontinued the use of certain clinical facilities, added new ones, and changed course texts and course plans.
- The Campus Writing Center, Campus Learning Center, and Basic Skills Learning Center use student surveys that collect data on skills learned, as well as overall satisfaction with services to revise or develop new materials or add new services.
- Academic Advisement and OIRA have used internally conducted student satisfaction surveys to assess and improve advisement services. After a decision to discontinue walk-in advisement and initiate an appointment-only-based advisement system during summer 2006, a survey was conducted. Of 776 respondents, 96 percent considered Advisement's services to be either good or excellent. Results indicate that the new system worked favorably. In another survey conducted during spring 2007, under the category of "overall satisfaction," over 98 percent responded that they were "good or excellent." Given these results, Academic Advisement maintains its current processes and policies.
- Port of Entry, an English language skills program, conducts an analysis of student needs at the end of each course cycle via a 15-question multiple-choice program survey in each class. The needs of the students are analyzed and improvements to the program are made. Because the surveys recently showed a high percentage of students requesting Chinese-speaking office staff, an additional Chinese-speaking member was added to the office personnel.)

To exemplify the type of assessment-driven improvements that have come about at the College, several case studies are presented here:

- The college's Writing in the Disciplines/Writing Across the Curriculum (WID/WAC) program exemplifies another approach to assessment. A graduation requirement of two writing-intensive (WI) courses for students in all degree programs was implemented in an effort to improve writing and critical thinking skills, and WID/WAC provides WI faculty training and support. The program administers both faculty and student surveys, tracks the number of writing-intensive courses offered, and together with OIRA has been conducting a longitudinal study to examine changes in student writing samples over a six-semester period beginning in fall 2006. As a result of faculty and student surveys, changes in WI assignments are often made to improve the clarity of assignment instructions, and some additional writing assignments have been integrated into non-WI courses. The program will continue its surveys of faculty attitudes and practices of WI faculty members. The WID/WAC co-directors also continue to assist the CUNY WID/WAC program in a university-wide assessment project that includes working with an outside expert to trace the impact across the university of WAC on professional development of faculty, classroom implementation of WAC pedagogies, and the development of student writing abilities.
- The Mathematics and Computer Science Department is in the process of conducting investigations of changes in the way that mathematics is presented. Scores on exit tests will

be used to determine if different pedagogical techniques (e.g., increased use of the internet as part of instruction) correspond to higher pass rates. During fall 2008, an extra hour was added to eight experimental sections of MA 005, the lowest developmental mathematics course. Students in the eight experimental sections had 5 percent more grades of “pass” than “repeat” or “withdrawal” as compared to the 18 control sections. Of all the students who passed MA 005, those who had participated in the experimental MA 005 sections had a 10 percent higher passing rate in the next developmental course, MA 010, than students who participated in the control sections of MA 005. While these results show potential, the department considers them to be preliminary and will continue with follow-up research.

- In response to the requirements of TAC of ABET, ECET and METDD have developed six-column analysis protocols that seek to draw causal relationships between analyses and improvements in learning. The ECET and METDD Continuous Improvement Plans (see Appendix 1) include action plans to address the results of their analyses. Among other changes, students now receive additional “kits” (components, VOM) for certain courses, instructional software has been changed, and course revisions have been made (more internet-based assignments, refurbishment of the radio room, and curricular changes like making ET 305 an elective). Student work modes now include more teamwork, new courses are being offered, excess and obsolete equipment has been replaced by newly purchased equipment, laboratory fees have been added to certain courses, online tutorials and an ethics module with an online component for assessment have been developed, new exercises for social responsibilities are added to a course, and the use of BlackBoard has increased.
- Launched in 2007, the Learning Communities Demonstration is a longitudinal study under the auspices of MDRC, a nonprofit, nonpartisan education and social policy research group that designs and studies new approaches to problems in public education. The demonstration utilizes random assignment to test models of learning communities at six community colleges, including QCC. QCC’s learning communities (in the Demonstration) target first-year students who place into either of the two lowest levels of developmental mathematics. Each learning community links a developmental mathematics course with a credit-bearing course in English, Speech, Sociology, Business or Astronomy, and learning community instructors meet to coordinate assignments. Students eligible to participate are randomly assigned into either the program group or control group. Program students are placed in a learning community; control students are placed in stand-alone courses. The interim report for the Implementation Study is scheduled for fall 2009; a final report is due in spring 2011.
- In response to student feedback and results, the Campus Writing Center’s CPE prep workshops were redesigned into separate Task 1 and Task 2 sessions with updated, expanded and modified materials and training. The result in fall 2007 was an 86 percent pass rate for students taking a CPE prep workshop, as compared to the corresponding fall 2006 pass rate of 75 percent for students who took the examination without having completed the workshop.

Surveys

Surveys are a limited method for obtaining information about learning. Low response rates, bias, subjectivity, and other errors can limit the validity of survey results. While valuable, student perceptions of whether their instructional needs are being met is not a measure of actual learning.

Research-based analyses like those carried out by the Mathematics and Computer Science Department and the Learning Communities Demonstration grant-funded project are ideal in the sense that there are concrete, well-measured, and realistically important dependent variables (e.g., the developmental mathematics exit test pass rate or student grades). Investigations of this nature should act as models for assessment inquiry, though it is recognized that the college’s non-quantifiable goals

and objectives—such as intellectual inquiry, critical thinking, personal growth, and establishment of constructive relationships—will not be evaluated in these ways.

As a means of addressing writing and critical thinking skills, WI courses are particularly important preparation for students taking the CPE graduation/transfer examination. A six-semester longitudinal study of the program's effects on student writing through examination of student writing samples is presently underway, and is scheduled to be completed in spring 2009; a report gathering faculty and student self-reported data between 2002 and 2005 has also been produced. The WIDWAC program has been in existence since 1999, and substantial, measurable formative data beyond faculty reflections and surveys of perceived effects is needed to gauge its effect. For summative data on the program, a longitudinal study is currently being conducted with OIRA.

Student Learning Analyses

Most departments meet frequently as a group and organize their staff/faculty into committees to foster collegiality and to facilitate the flow of information. In the course of this working group's investigations, most departments reported that they rarely lack data, and some have reported "information overload" in that there is sometimes too much data and irrelevant information presented to them. For the most part, there is a good deal of informational sharing, and during this working group's investigation, many have expressed great satisfaction with their informational collaboration with OIRA, although some departments have noted that there is not enough time to share departmental assessment results and faculty are not necessarily interested in department-wide assessment results. For example, faculty in the Business Department are divided between computer information systems and accounting and management; results affecting one area may not be of interest to faculty in another area. Most recommendations for improvement seem to stem from difficulties in obtaining information from other colleges and a desire to improve our ability to follow up on the success of our graduates. It is hoped that the new *CUNYfirst* initiative currently being piloted at QCC will eventually enable greater information sharing among colleges.

Two examples of the many actions taken as a result of assessments are: 1) based on the assessment for achieving general education objective #2 (*use analytical reasoning to identify issues or problems and evaluate evidence in order to make informed decisions*), students in EN102 are now required to perform such analytical tasks as identifying key information in a given source and differentiating facts, assumptions, and conclusions as they formulate proposed solutions; and 2) based on the assessment for achieving general education objective #1 (*communicate effectively through reading, writing, listening and speaking*), the Business Department has joined the Mock Trial Association.

Although there have been numerous attempts to use student learning analyses to improve teaching and learning, there are fewer instances in which departments or programs have investigated whether the analyses have, in fact, resulted in improved teaching and learning. It is very difficult to design a rigorous, non-confounded research program to assess if teaching and learning have improved from analyses. It is suggested that non-rigorous research methods like follow-up interviews/surveys of students could be conducted to determine whether students perceive that course changes resulting from previous student feedback better meet the needs of current students. Student perceptions of their learning may be inexact but is a step along the path toward determining a link among analyses, conclusions reached, changes in teaching made, and measurable improvements in student learning.

Academic support programs face similar difficulties in ascertaining the true causes of gain or loss in student performance. For example, the Campus Writing Center, Campus Learning Center, and Basic Skills Learning Center all utilize multiple measures to look at the effects of their tutoring, including student and staff evaluations of tutors, student outcomes in the courses for which they receive tutoring, and the number of hours of tutoring received by each student. Results are carefully analyzed

to determine trends as well as the effectiveness of newly implemented initiatives and changes. The results of the analyses are understood to be imperfect, as confounding variables cannot be eliminated, but because they constitute the best information available, they are used to inform future adjustments to tutoring, test prep, and other services offered to students.

In response to TAC of ABET accreditation requirements, the departments of METDD, ECET, and Physics continue to operate a cyclical, continuous evaluation/improvement process. Faculty from the departments and the vice president and dean for Academic Affairs attended TAC/ABET workshops, worked together on the new plan, and collaborated to identify measurable curricular objectives, courses in which those objectives could best be assessed, and appropriate assessment instruments and to design rubrics for evaluating the objectives. Of the College's general education objectives, problem solving, communication, teamwork, and awareness of social and ethical issues parallel the required student outcomes for TAC/ABET-accredited engineering technology programs, in addition to the acquisition of technical skills. The Continuous Improvement Cycle starts with assessment and continues to evaluation and revision, followed by assessment, as the cycle repeats itself. The cycle is particularly results oriented: data analysis yields action plans; actions are taken and subsequently learning is again assessed in a continual, looping process. This method of investigation ideally answers the critical question whether research and activities have an impact on teaching/learning.

Finally, OIRA completed two studies—one on tutoring at the college, with analysis about effectiveness and recommendations, and one on remediation (see Appendix 8).

Distance Education and Tutoring

The college offers online and hybrid courses, supported by the Academic Computing Center. QCC has not yet adopted a method of assessing the effectiveness of its online and hybrid courses, but an Academic Committee on Distance Education has been formed, in part to help to ensure the quality of online classes. Other uses of technology for teaching and learning include computer laboratories, fixed instructional presentation systems in classrooms, library information literacy efforts, and online asynchronous tutoring for writing assignments. The *2006 Student Experience Survey* showed increased student satisfaction regarding access to computers in the laboratories. No assessment currently occurs concerning the impact of fixed instructional presentation systems in classrooms or of the effect of library information literacy services. Online tutoring is assessed through student outcomes in the courses for which they received asynchronous tutoring and student evaluations.

Assessment Database

Although assessment strategies vary from discipline to discipline, most departments investigated list specific outcomes for each of the college's general education objectives, as well as the assessment tools and rubrics used to measure achievement of each objective. Beginning with course development, departments respond to questions about general education on the New Course Proposal template, required by the College's curriculum committee. Course objectives are aligned with curricular objectives, which in turn are aligned with educational objectives. To help accomplish this, department chairs have access to a 3.42 Mb Microsoft Windows Access database: the Course Objective System (on the Academic Affairs webpage). Users can enter and retrieve quantifiable course objective information according to templates that ensure consistent data. Indices include course activities, course objectives, curricular objectives/curricular objectives, educational objectives (individual objectives are listed), general education activities, general education objectives, and educational context. Information for each of these indices is available in report and table form. For each category, the data may be looked up by course, curriculum, or department. There are also several helpful "mini-databases" like contact information by department, current curricula, courses, various word lists for editing input, and help in looking up and defining the various primary index terms.

The Course Objective System can generate reports that list general education objectives covered by each course, how many courses meet each general education objective, etc. Each course assessment ends with a summary of assessment results and a plan of action for each desired student learning outcome. Information gleaned from these assessments is used to refine curricula and add new programs. Although the system database is a valuable resource, it has several serious shortcomings: 1) the structure of this database is repetitive and cumbersome; 2) the information has not been kept current; 3) it is far from comprehensive, as some departments have only defined general education or curricular objectives for a small fraction of their courses; and 4) no one is assigned to maintain the database, assist with updates, and produce reports and disseminate.

Strengths

- The Year-end Reports indicate the use of a variety of assessment methods, including qualitative and quantitative, internal and external review, and cross-sectional and longitudinal.
- The College is developing an Academy structure for all full-time, first-time students. An assessment protocol will be developed and coordinated through Academic and Student Affairs.
- CUNY*first* will improve information access and sharing by creating an integrated environment.

Weaknesses and/or Concerns

- Some departments reported to the working group that there was no formal mechanism in place for dissemination and integration of assessment results within their department.
- Each learning center pursues its own program-specific goals and utilizes instruments and procedures appropriate to those goals, but this information needs to be better disseminated to promote best practices and to avoid duplication of efforts.
- While the demands on OIRA for research are high, staffing is low, limiting the amount of research on assessment of student learning and institutional initiatives.
- While a valuable resource, the College's Course Objective System database is underutilized and less user-friendly than desired and lacks adequate management.

RECOMMENDATIONS

- Each Academy should develop an assessment protocol appropriate to its discipline(s).
- The College should continue to use college-wide forums to explore the assessment of teaching and learning and the effectiveness of college services in support of instruction.
- OIRA should be provided with a significantly larger staff to be able to support both current and additional institutional research.
- To conform with the program review process, the Year-End Reports should be followed by the development of action plans.
- Assessment data appropriate to the discipline or program should be a part of the budget and resource allocation process.
- An assessment vehicle should be established to determine the impact of the academy structure on the educational experience.
- The longitudinal study of the College's WID/WAC program should be completed.
- A more standardized form of assessment reporting should be developed and incorporated in cases in which common measures would help to promote improvement. Both quantitative and qualitative data should be utilized.
- A cross-disciplinary College-wide Assessment Protocol Database Committee, comprising administration, faculty, and staff, should be established to redesign the Assessment Database and establish a comprehensive assessment website where the database should be located.