Critical Thinking Corner

“All humans think. It is our nature to do so. But much of our thinking, left to itself, is biased, distorted, partial, uninformed, or down-right prejudiced. Unfortunately, shoddy thinking is costly, both in money and in quality of life. Critical thinking begins, then, when we start thinking about our thinking with a view towards improving it.”

Dr. Linda Elder & Dr. Richard Paul, Directors
The Foundation for Critical Thinking

The Biology Department at BCC: Closing the Loop

Two biologists from BCC’s Department of Biology and Medical Lab Technology presented their department’s method of summative course assessment at the November 2012 CUNY Assessment Council Seminar. The presentation, entitled “Closing the Loop,” detailed for the audience of more than 50 assessment directors, department coordinators, and faculty how the assessment process is seamlessly embedded in the teaching process as practiced by the biology department. The presentation was held in the Skylight Room of the CUNY Graduate Center. During Q&A, the BCC professors answered questions from the audience about their impressive, logical step-by-step approach. The presentation by Professors Akkaraju and Atamturktur was praised by CUNY assessment council members for its simplicity, especially for how well the department has streamlined outcomes assessment into grading.

The biology department continually evaluates, and, when necessary, revises its assessment process, which is characterized by four guiding principles: the first is that assessment is automatic. In courses undergoing assessment, course coordinators and faculty develop 25 common multiple-choice questions; once agreement has been met, the questions are embedded in the cumulative final exam. These questions reflect the course’s learning outcomes, the foundation for summative assessment. The 25 questions are graded along with the rest of the final exam using Scantron sheets that provide the instructor with specific evidence of how students are performing. Because assessment is practiced in the biology department as an integral component of successful teaching, assessment-minded thinking informs course pedagogy from the start of the semester to its final exam.

Assessment works best when it is ongoing, not episodic.
~American Association for Higher Education

The biology department's second guiding principle is the assessment process should be systemic. Because biology is a specific discipline arbitrarily spread over different courses, what an assessment reveals in one course will often speak and affect content in nearby courses. For example, assessment of anatomy and physiology will not only affect the content and/or delivery of that course, but often it will influence other courses in the sequence, benefitting the discipline as it is practiced at the departmental level. Systemic also refers to faculty who regularly perform outcomes assessment; doing so, they expand on the conscious evaluation of how students are meeting or falling short of faculty-designed learning outcomes. Even when the results of assessment are disappointing, as often they are, they carry valuable information, attend to the problem of student learning, and bring faculty together.
We plan. We develop. We deliver. We assess and evaluate the results of the assessment. We revise, deliver the revised material, and assess and evaluate again. Perfection is always just out of reach; but continually striving for perfection contributes to keeping both our instruction fresh and our interest in teaching piqued.

-E.S.Grassian, UCLA

The third guiding principle is that the assessment process is sustainable. At a recent national conference on general education, the guest speaker asked the audience how many people in the audience had at one time begun or been part of an assessment initiative in his/her college or department, only to see it stall. More than three-quarters of the audience raised its hand. One problem sustaining continual assessment at any level is that it must be built into the teaching ethos. Assessment is a counterpart to teaching, not the work of an outside agency being imposed on faculty. When used together, teaching and assessment create a powerful prescription for student learning. During their presentation, the professors noted that the biology department has been successful in sustaining rigorous assessment because the department chair and faculty share the belief and experience that successful student learning requires continual assessment.

The important question is not how assessment is defined but whether assessment information is used . . .

-Catherine Palomba & Trudy Banta

The fourth guiding principle is that the assessment process is meaningful. Professors Akkaraju and Atamturktur spent a good portion of their presentation showing and discussing how much attention each of the embedded 25 questions reflecting the course learning outcomes receives. For assessment to be meaningful, the assessor needs to “close the loop,” which means examining the results of the assessment, determining its significance, and making changes in the next iteration of the course. Assessment is meaningless without closing the loop, which begins with establishing course learning outcomes and closes with intervention—making necessary changes to the course itself or changing how course material is presented to the student. The department’s assessment of student learning outcomes, whose results are sometimes encouraging, sometimes disappointing, but always revealing, continue to inform curricular changes and encourage student-centered teaching practices.

More than ever, the sheer magnitude of human knowledge renders its coverage by education an impossibility; rather, the goal of education is better conceived as helping students develop the intellectual tools and learning strategies needed to acquire the knowledge that allows people to think productively about history, science and technology, social phenomena, mathematics, and the arts. Fundamental understanding about subjects, including how to frame and ask meaningful questions about various subject areas, contributes to individuals’ more basic understanding of principles of learning that can assist them in becoming self-sustaining, lifelong learners.

How People Learn: Brain, Mind, Experience, and School
National Research Council

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Blackboard Course Offering: General Education and Outcomes Assessment

In Spring 2013 semester, the course will be offered twice.

**Session 1**

Runs from February 11 to March 4

One-hour introductory session will be held Feb 11, 10-11 a.m.

CTLT, Philosophy Hall

One-hour concluding session will be held March 4, 10-11 a.m.

CTLT, Philosophy Hall

**Session 2**

Runs from March 12 to April 9.

One-hour introductory session will be held March 12, 11 a.m.-12 p.m.

CTLT, Philosophy Hall

One-hour concluding session will be held April 9, 11 a.m.-12 p.m.

Philosophy Hall

**Please Note:** The class is offered to all BCC faculty. Attendance at the introductory and/or concluding sessions is not required to take the class. To enroll, please email richard.lamanna@bcc.cuny.edu.