

## **MIDDLE STATES INTERIM REPORT ON ASSESSMENT OF STUDENT LEARNING OUTCOMES**

Vassar College has made progress on a number of fronts in our efforts to assess student learning outcomes both College-wide and on the level of individual departments and programs. With our mission statement under review by our Governance Review Steering Committee, our assessment efforts have focused on critical reasoning, College-wide requirements (especially writing, quantitative reasoning, and disciplinary breadth), and on goals specific to particular departments and programs:

1. We successfully completed the data-gathering phase for a four-year longitudinal assessment of student learning over seven outcomes associated with undergraduate liberal arts education, through our participation in the Wabash National Study of Liberal Arts Education with the graduating class of 2011. We await the analysis of these data from the Wabash Center of Inquiry in the Liberal Arts. By tying these student-specific results to transcript analysis and course-specific learning outcomes and content goals identified by faculty, we hope to illuminate connections between students' curricular choices and student learning. This linkage will provide insight into how we can help students navigate most effectively our low-requirement liberal arts curriculum.
2. We participated in the 2010 COFHE Senior Survey to gain insight into students' perceptions of the skills and abilities they developed at Vassar. This provides comparative data on student perceptions of learning gains relative to their peers at 16 national liberal arts colleges.
3. Our assessment committee has developed a comprehensive plan for longitudinal assessment of student writing development that will begin in 2012. Our newly-appointed Director of the Writing Center is providing leadership and continuity in this effort. In part to take greater responsibility for overseeing this project, our Freshman Writing Seminar Steering Committee has brought forth a proposal to broaden its charge and become the Writing Committee, working as a subcommittee attached to our Committee on Curricular Policies. This proposal is currently under consideration.
4. Our assessment committee is in the early stages of developing plans for assessing student learning in the area of quantitative reasoning, on the model of the progress made with assessing writing. A newly-appointed Director of our newly-established Quantitative Reasoning Center is providing leadership and continuity in this effort, and the Quantitative Analysis Subcommittee attached to our Committee on Curricular Policies will provide oversight as this project develops.
5. We have reintroduced systematic department and program self-studies and external reviews that have begun to yield results informing our staffing and

curricular decision-making.

6. We have built an intensive assessment component into our science curricular development initiative funded by the Howard Hughes Medical Institute.
7. We have retained the services of our long-serving former Registrar for one year to assist with our efforts to link transcript analysis and course-specific learning outcome and content goals to the data yielded by the Wabash assessment.

### **ASSESSMENT OF GENERAL EDUCATION: WABASH and COFHE**

With a curriculum that allows students to make informed choices about what they study, guided generally by advising rather than requirements, defining the goals and assessing the outcomes of general education at Vassar is not as straightforward as assessing learning outcomes when there is a specified general education curriculum. The college has continued to make progress in gathering information to help us analyze our success in teaching students to “meet the challenges of a complex world responsibly, actively, and imaginatively.” (Mission Statement of Vassar College) In particular two initiatives since the Middle States Reaccreditation of 2008/9 give us sources for data that will be important in our ability to understand where we are successful and where we should make changes in the curriculum, in pedagogy, or in advising.

The first of these initiatives is our participation in the Wabash National Study of the Liberal Arts in Education, run by The Center for Inquiry, Wabash College. We administered the full battery of surveys and tests connected to this study to the class of '11 when they were freshmen and again when they were seniors. 479 (of 677) first-year students completed the full set of tests and surveys in the fall of 2007. In the spring of 2011, 391 seniors completed the senior year tests and surveys. 283 from the original 479 freshman participants retook the tests, for a response rate of 59.1% among the original participants, one of the highest response rates among all institutions participating in the Wabash study. These large numbers of participating students and high response rates should enable full, robust analysis of the Wabash datasets for Vassar. We have submitted the results to the Wabash study. We expect to receive Vassar's full datasets and basic analyses soon.

The central product of the Wabash project is direct measurement of student outcomes. All outcomes are studied on a pre-college to graduating senior basis, with the data structured on an individual student basis for each participating student. Supplementing this are a variety of surveys (e.g., NSSE data) which provide extensive contextual information, both attitudinal and behavioral. These enable us to make connections between the measured pre/post outcomes and student attitudes, college experiences at Vassar, and reported behaviors (both academic and extra-curricular), in addition to studying these outcomes by gender, race/ethnic background, academic major, and the like.

There are primarily two reasons why participation in the Wabash study will provide important information for us. First of all, we will be able to compare our results with the results of the roughly 30 other colleges participating in the study. Secondly, the Wabash study allows us to send additional campus-based information that we can then correlate with the results for each student. The test provides a broad range of information about individual students' experiences and attitudes as well as their measured critical reasoning abilities, both as freshmen and as seniors. Since we also have the possibility of correlating other information that we think is important in assessing learning outcomes to the test results, these data about one class at the beginning and end of their Vassar careers will allow us to explore which correlations are meaningful in student learning. For example, we will be able to explore whether the breadth of a students' program of study or their choice of major correlates significantly with development of critical reasoning abilities; or whether a student who has studied abroad or has pursued extensive experiential learning opportunities has different results than other students.

We will use the data we acquire from participation in the Wabash study to determine what variables in students' backgrounds, programs of study, and residential college experiences are important in assessing student learning. In conjunction with the "tagging exercise" described in the Self-Study, we anticipate being in a position in the next two-and-a-half years to define what the important goals for general education at Vassar are, and then to study what factors, both academic and extra-curricular, in the students' overall experience, as well as others more personal in nature, contribute to success in reaching those goals. We will also gain a good sense of where our weaknesses lie in student outcomes, how these compare to those found at other schools, and how we might begin to address those weaknesses.

The second initiative to gather data that will lead to assessment of learning outcomes is our participation in the COFHE Senior Survey in 2010 (and planned participation in 2012). Of particular interest for assessment are the data showing seniors' perceptions of the importance of 25 skills and abilities as well as their perception of areas where they gained skills while at Vassar and where they didn't. We will be able to correlate perceived gains in skills with student choices about courses and their grades in those courses. Although student perception of areas where they have (and have not) made gains in these 25 skills is not an objective, direct measure of learning outcomes, research has shown that there generally are reasonable correlations between perceived and actual gains. In addition to providing relative measures across the 25 learning outcomes, we will be able to compare our students' assessment of the importance of particular skills and the gains they have made with those of our peers. These findings will allow us to provide useful information both to faculty and to advisors about how best to guide students through the curriculum so that they gain the skills that both they and the faculty consider important in a liberal arts education.

In the long run we hope that all of these comparative data, Wabash, COFHE, and others, will help us to discern where the particular strengths and weaknesses in Vassar's curriculum lie. The combination of data for actual learning outcomes from the Wabash study and perceived gains from the COFHE study with the ability to correlate these data

to particular student transcripts and learning experiences at Vassar opens the door to analysis which we will be able to feed back directly to faculty, in their roles both as teachers and advisors. We are confident that we will make significant progress in this direction in the next two and half years.

### **ASSESSMENT OF STUDENT WRITING DEVELOPMENT**

Our Committee on Assessment, in conjunction with the Directors of our Writing Center and Learning, Teaching, and Research Center, has developed plans for a longitudinal study of student writing development. Our work on the Longitudinal Writing Study builds on a previous writing study funded by the Teagle Foundation (2006 - 2008) and the results of two surveys conducted by previous committees: the 2008-2009 survey of departments and programs about what constitutes good writing in each academic discipline and the 2009-2010 survey about the role of writing in departments' and programs' senior capstone experiences. The Teagle-sponsored writing study and the surveys suggested that our students' writing skills on average improve over the course of their undergraduate careers and provided us with information about writing requirements across disciplines, but did not provide us with any information about when or why our students' writing skills improve or do not improve. During 2010-11, the Committee on Assessment worked with the director of the Writing Center on refining the proposed longitudinal writing study so that we can answer these questions and ultimately improve the education we provide our students. A previous attempt to fund the study using external sources brought feedback that the relevant funding agencies were more interested in funding studies using already-collected data than studies to collect new data. The Committee then consulted with the Dean of the Faculty about possible internal funding for the Writing Study and worked with his suggestions to lower the overall cost while retaining the core goals of the study and its quality. The Assessment Committee presented an updated budget to the Dean of Faculty in March of 2011, for a study to begin in 2012.

An essential first step of the Study is to develop consensus across the curriculum about the attributes of good writing and to generate a rubric with which to evaluate student writing samples. To that end, the Committee examined writing rubrics developed by other institutions and also used the 2010-11 Assessment Retreat following the Senior Assessment Lunch to involve faculty across the curriculum in an exercise to identify core principles of good writing. The work of constructing a writing rubric will continue under the auspices of the Writing Committee during 2011-2012. The Committee will invite ten faculty members from across the divisions to work with the eight committee members to construct the rubric. These ten faculty members will then be the first group of evaluators to apply the rubric in assessing student development as writers based on a sampled subset of students who submit papers from various stages in their undergraduate studies.

Additional activities to help launch the Writing Study include inviting a speaker for this year's Assessment Retreat (spring, 2012) who can lead the faculty in a discussion about the assessment of writing and developing videos to inform incoming students about the study and the work of the Writing Center.

## **QUANTITATIVE REASONING ASSESSMENT PROJECT JUST GETTING UNDER WAY**

This year's Assessment Committee (2011-12), chaired by mathematics professor Natalie Frank, has taken on the challenge of assessing student learning in the area of quantitative reasoning. Working with the Director of the Quantitative Reasoning Center, the Committee will develop an assessment plan resembling in scope the one recently developed for assessing student writing outlined above. This work is beginning with a review of the College's mission statement and the goals and guidelines for the quantitative reasoning requirement and will continue over the next two years.

## **DEPARTMENT AND PROGRAM ASSESSMENT**

In 2009-10, we revitalized our practice of regular, decennial self-study and external review of all of our academic departments and programs. Between 1994 and 2009, this practice, spelled out in our *Department Chairs and Program Directors Handbook*, had fallen into disuse, with only four of our forty-seven departments and programs conducting such reviews. Since 2010, we have undertaken ten reviews and have developed a calendar cycling through all departments and programs each decade. Coupled with a 2007-08 effort in which departments and programs identified their goals and objectives (published on the Dean of the Faculty Web site at [deanofthefaculty.vassar.edu/goals/](http://deanofthefaculty.vassar.edu/goals/)), these reviews are providing valuable information on the effectiveness of our departments and programs in educating our students.

Each review involves an internal self-study, responses to questions developed by our campus-wide Committee on Curricular Policies, external review by a three-member visiting committee, and integration of these sources of information in a statement of proposed departmental development. Our goal is to understand and enhance the intellectual vitality of the department or program as it manifests itself in teaching and learning, scholarly or artistic activity, and contribution to the overall academic life of the College.

Early participants in these reviews have made significant changes to their curricula and staffing priorities as a result. The film department, for instance, has developed and offered a new film production course at the 200 level, a year earlier in their curriculum than previously, to have a more scaffolded production curriculum. They have also strengthened ties with media studies and incorporated television more fully into their curricular offerings. A three-year career and curricular transitions postdoctoral fellow appointed in 2010 has brought television expertise that is influencing department thinking about curricular priorities as they face retirements of two long-standing members of their faculty.

Our Urban Studies program, in response to external reviewer suggestions, has tackled long-standing problems with staffing its core courses by developing a five-year staffing plan for associated program faculty. They have also followed recommendations to

improve advising by distributing the load among steering committee members rather than having a single advisor assigned to each graduating class cohort. The external review team also recommended reconstituting an “Urban Planning and Practice” course taught by a practitioner in the local community, an initiative that the steering committee welcomed and the Dean of the Faculty approved.

We are seeing substantial benefits and concrete changes stemming from recently-completed department and program reviews. We look forward to similar improvements in our educational offerings and staffing arrangements arising from the five reviews currently underway and those scheduled over the coming years.

### **HHMI/CCAS ASSESSMENT IN THE SCIENCES**

In both our current and proposed major grants from the Howard Hughes Medical Institute to enhance science education, we have incorporated assessment as an integral component of the project. Since Spring 2011, Anne-Barric Hunter, Co-Director of Ethnography & Evaluation Research (E&ER) and Senior Professional Researcher at University of Colorado, Boulder, has been conducting an independent evaluation of Vassar’s Center for Collaborative Approaches to the Sciences (CCAS), a programmatic initiative implemented under our 2008 HHMI grant. The new proposal describes a furtherance of key CCAS activities and the introduction of new and related initiatives. We will continue to partner with Prof. Hunter—now familiar with Vassar and key CCAS personnel—to evaluate the impact of HHMI funds. In the process, PI Hunter will employ a mixed-methods evaluation design to assess the curriculum/faculty development, undergraduate research and outreach activities that are intended to encourage and promote excellence in science teaching and student learning that is interdisciplinary, research-oriented and that extends into, builds and strengthens science education as well as the broader liberal arts experience at the College.

The new proposal also includes a Scientist-in-Residence who will bring science assessment expertise to campus. Few of our science faculty arrived at Vassar with any formal training in assessment. Thus, our assessment efforts have been somewhat piecemeal, with different individuals and departments applying disparate methods. Over the past two years, long-distance consultations and on-campus workshops by our HHMI outside evaluator have started us on the path toward more effective and useful assessments. We believe that the continuous on-campus presence of an assessment expert would be especially helpful as we integrate more standardized assessments such as the Student Assessment of Their Learning Gains survey into our activities. Our proposed Scientist-in-Residence would be a natural scientist whose focus is undergraduate science education and who is conversant with best practices in assessment. This individual would be our on-campus go-to person for advice on assessment.