West Virginia University

Progress Report on Assessment

1 May 2007

(Revised 30 May 2007)

University Assessment Council:

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Introduction

In April 2004, a team report from the Higher Learning Commission comprehensive visit stated, "West Virginia University is not only meeting all 24 of the General Institutional Requirements but also fulfilling all five of the Criteria for Accreditation," and advised awarding the institution a full ten-year accreditation. The single recommendation of the team was a Progress Report on Assessment.

The *Assurance Section* of the 2004 report gives the rationale for the required 2007 progress report:

> The Assessment Council has not been able to develop an approach to assessment that would engage the full support of faculty and departments in order to ensure a high level of quality in program-level assessments across all departments in the university. Reasons for this lack of success have been recognized by the university and are identified in the Self-Study.

> Except for some graduate programs and programs subject to external accreditation, there is little evidence of assessment activity that specifies learning outcomes, gathers evidence on student learning and uses information to improve the educational program. Furthermore, there is evidence that faculty do not understand, and therefore do not support, the basic tenets of assessment.

The self-study had reported the following: "WVU has discovered as a result of engaging in the HLC self-study that the Assessment Council has not been as useful as had been hoped for several possible reasons." It was further explained that the Associate Provost for Academic Programs had "put the Assessment Council on hiatus as plans are made to restructure the council and revise what it does and how it operates."

West Virginia University requested of the HLC site consultant-evaluators advice on ways to change the culture: to teach the faculty about the value of assessment, to provide ideas about how to incorporate assessment into their everyday thinking about learning, to demonstrate how closing the loop improves both teaching and learning.

During the self-study, WVU began sketching out a plan to redesign and restaff the University Assessment Council, spread the responsibility for assessment across the various colleges in the University, and work together to bring assessment to the forefront of the University's understanding of how it operates. The plan was to allow all independently-accredited programs to perform assessment using the standards of their accrediting bodies. ABET (Engineering), ASCSB (Business), and NCATE (Education), in addition to the various accrediting bodies for the legal and medical disciplines, are known for their focus on assessment.

University Assessment Council
The Associate Provost's "Remarks Made to the WVU Board of Governors," immediately prior to the campus visit, outlined the new assessment plan, which would do the following:

- Reconstitute the University Assessment Council as a group of 8-10 faculty and administrators from across the institution as a consulting unit responsible for organizing faculty development, raising campus awareness, evaluating general education assessment, and maintaining college compliance with university assessment policy.

- Require that all programs *with* specialized accreditation, e.g. Engineering, Business, and Education, submit to the University Assessment Council copies of their self-studies, the visiting teams' report. Annual updates, including a one-page executive summary of their work with student learning outcomes, would also be required.

- Distribute to the deans of colleges with programs *without* specialized accreditation programs a list of broad guidelines for program assessment. College-level assessment councils will be responsible for individual program assessment and will report to the University Assessment Council. Members of the University Assessment Council will be available to consult with departments and colleges on their assessment plans.

- Change the process of assessment so that it is tailored to individual program needs by permitting departments and programs to choose how to assess student learning, rather than by requiring identical assessment measures from all units across the institution.

- Change the University culture so that assessment becomes universally recognized as a normal part of what instructors do to improve teaching and learning by offering multiple opportunities for faculty to learn more about assessment in a variety of venues.

Since 2004, the University Assessment Council has functioned in the way it had been envisioned during the Self-Study process.

After rigorous debate and dialog, the University made a conscious choice not to create a position of Assessment Coordinator or Director of Assessment at the University level. As a research extensive land-grant institution, the Assessment Council determined that assessment is better served by mandating assessment at the college level. This commitment is evidenced by the fact that a number of colleges, i.e., Journalism, Arts and Science, Education, and Agriculture, have hired their own assessment coordinators, who report to the University Assessment Council.

In the three short years since the 2004 team visit, West Virginia University has become a campus focused on assessment at all levels: general education, course-level, undergraduate program level, and graduate level. It is understood that assessment is no longer seen as strictly the responsibility of the Assessment Council; rather assessment is understood as everyone's business, as supported by the examples stated hereafter.

Learning Outcomes

General Education
West Virginia University had just completed a renovation of its General Education Curriculum (GEC) prior to the 2004 team visit. (See Appendix 1) The GEC substituted nine objectives for three cluster areas the University had employed formerly and emphasized assessment of student learning. The prominence of statements of student learning outcomes in the new GEC distinguishes it from the old Liberal Studies Program with its cluster requirements. The application for general education courses now requires the syllabus to state which objectives the new course will fulfill, including the course's student learning outcomes, which must align with that of the specific objective. The syllabus and grading rubrics are scrutinized by committee faculty members who serve on the General Education Curriculum Oversight Committee (GECO). (See Appendices 2, 3, and 4 for the GEC New Course and Five-Year Assessment Form, Checklist for Review of GEC Audits, and General Education Curriculum Oversight Committee Annual Report) The first application may be returned to the faculty member with a request to call a committee member for a quick lesson on writing student learning outcomes and developing rubrics, and the committee has communicated with a number of faculty members about writing learning outcomes. Plans are in the works for the Faculty Senate website to include on-line tutorials for the writing of student learning outcomes.

Members of the GECO Committee have become assessment apostles, talking privately and in various forums about the importance of assessment. Thus, the need for assessment is being driven deep into the University person by person. It is also becoming clear that as the faculty turns over as a result of retirement and new hires, the resistance to assessment, which we saw in the 1980s and1990s, is shrinking substantially. New faculty have received their degrees

and learned their pedagogy in the age of assessment and accountability, and they look forward to using the information assessment provides to improve learning in their classrooms.

Faculty Senate Curriculum Committee
New courses and courses and programs requesting curricular change are evaluated first by department and college curriculum committees and then proceed to the Faculty Senate Curriculum Committee (FSCC), the GECO Committee's sister group. (See Appendix 5 for the FSCC's annual report to the Faculty Senate.) Since the 2004 visit of the HLC team, both groups have insisted on thorough syllabi that contain student learning outcomes. (See Appendix 6 for a sample communication between the chair of the FSCC and a faculty member.) Model syllabi, which include learning outcomes, appear on the FSCC and GEC websites:
http://www.wvu.edu/~facultys/LSP%20Syll_Italian_1015.pdf ,
http://www.wvu.edu/~facultys/LSP%20Syll_EE_4807.pdf ,
http://www.wvu.edu/~facultys/syllabus.pdf . Although these committees do not require them, rubrics are becoming more popular with faculty, and applications for new courses taught by recently-hired faculty often feature rubrics. As the institution works toward transparency in its expectations for student learning, faculty understand how important a syllabus is. The Faculty Senate Student Instruction Committee, in concert with the Faculty Senate Curriculum Committee, recently issued "Syllabus Guidelines" to guide faculty in preparing syllabi that are tools for learning and that address assessment issues. (See Appendix 7)

Graduate Education
Our most prominent graduate programs at our professional schools, e.g., medicine, nursing, pharmacy, business, and law, are accredited and accustomed to extensive assessment, which is detailed in their accreditation reports and updates. (For the complete list of independently accredited programs at WVU, see Appendix 8) Faculty from other disciplines, notably those in the College of Agriculture, Forestry, and Consumer Sciences, and those in the Eberly College of Arts and Sciences, have been less motivated to embrace graduate level assessment, believing that the reaching the milestones of a graduate degree – master's thesis, comprehensive examinations, dissertation – constitutes assessment. A faculty development session was held at a Fall 2006 meeting of the Graduate Council titled "What Is Assessment and Why Should We Commit to Doing It" to encourage faculty to think about comprehensive examinations, defenses of theses and dissertations, and publication of professional papers in terms of assessment.

"West Virginia University's 2010 Plan: Building the Foundation for Academic Excellence" spawned a number of task forces, including the Task Force for Graduate Education. This task force recently concluded its work. (The report is

available at
http://www.wvu.edu/%7E2010plan/documents/graduate%20education%20report.pdf .) Its most important recommendation is to create a full-time position for a Assistant Vice President for Graduate Education to take the lead in re-envisioning graduate education on the WVU campus. This new AVP's responsibilities will include the formation – and assessment – of a graduate student academy to teach pedagogy, professional behavior, networking strategies, etc.

Advising
The 2010 plan also highlighted the importance of advising at both the undergraduate and graduate level and charged a task force to consider the issue. Student satisfaction surveys and focus groups had been conducted, noting problems with, among other things, the availability and consistency of information and adviser training. The report of the Task Force on Advising and Career Placement is available at
http://www.wvu.edu/%7E2010plan/advising.htm. Following the acceptance of the Task Force report, Implementation Committee was formed   This group has committed itself to three initiatives: 1) the mounting of a robust centralized website to function as a clearing house for advising information, including a searchable "Ask Nick" feature; 2) the implementation of digital imagery software to allow students to avoid steps and aggravation in the handling of forms; and 3) the creation of a system for accountability and rewards.

Program Assessment
Department-level program assessment at WVU has come a long way indeed since the HLC team visited in 2004. In the Advancement Section, the team suggested that department-level assessment could be demonstrated to have improved if WVU were able to demonstrate the following: clear ownership by the faculty; simple, clear, and thoughtful plans for assessment; qualitative or quantitative data to judge learning outcomes; and improvement in at least some departments.

The team blessed WVU's new assessment plan conceived before the team visit and after the old Council had been put on hiatus. After the visit, the University Assessment Council secured new and strategic members, including two members with extensive assessment experience (the associate deans of business and engineering), one member from our agriculture school, two members from our College of Human Resources and Education for whom assessment is a research interest, and five important members from the Arts and Sciences college. In this way assessment veterans worked alongside some less experienced faculty and administrators in hopes that an enthusiasm for the virtues of assessment would be contagious.

The Assessment Council spent fall 2004 writing and revising "West Virginia University Student Learning Outcomes Assessment Principles." (See Appendix 9). Assessment Council members shared iterations of the document with their faculties, and returned several times with comments. The deeply held beliefs about education and the urgency of the discussion attending the approval of this document were heartening: faculty really did care about assessment. The challenge was finding language on which the Council could agree.

In February 2005 the University Assessment Council sponsored an assessment basics workshop and encouraged each unit to send teams of at least three people. Sixty-five faculty attended, many from the Eberly College of Arts and Sciences. Each received a free copy of Barbara Walvoord's *Assessment Clear and Simple*. In the course of the workshop, individual programs drafted student learning outcomes for their departments, which became the basis for the assessment plans the colleges were requiring. A year later, in January 2006, WVU hosted Professor Walvoord, who visited for two days, meeting with department chairs and running a workshop on general education assessment.

Her report, included as Appendix 10, was reassuring, citing a number of strengths including the following:

- A strong new Assessment Council is operating effectively

- The university's new Strategic Plan contains "Key Indicators" for each of its goals. Some of these address student learning outcomes. For example, a key indicator for Goal 3: Enhance the Educational Environment for Student Learning, includes as an indicator, "enhance the outcome of the capstone experience across all academic programs" and "develop integrated programs that foster increased writing and information literacy across the disciplines."

- General Education requirements are based on learning objectives (e.g., "Use quantitative and scientific knowledge effectively" and "Analyze historical, cultural, and/or political issues of a Western nation in an international context.")

- A five-year rolling review of all Gen-Ed courses asks faculty teaching the gen-ed courses to demonstrate that the course learning objectives are consonant with gen-ed objectives, that the course contains exams and assignments that measure students' understanding of those objectives, that the course fosters critical thinking and methods of inquiry, and that the faculty are using the assessment information for change.

- The English Department has developed an assessment plan including classroom-based assessments and rubrics for evaluating student work.

By fall 2005 the Eberly College issued directions to chairs of each of its departments, requiring each unit to submit the following by March 15, 2006: a list of learning goals/student learning outcomes for each undergraduate degree or certificate program it offers; two measures to be addressed; and a plan to review assessment evidence and take action. (See Appendix 11.) These plans were indeed submitted and reviewed by the Associate Dean for the Eberly College and then delivered for information to the University Assessment Council. (See Appendix 12) At first, the University Assessment Council responded directly with each unit with its findings. (See Appendix 13) It made more sense, however, for each college to provide its own response and for the University Assessment Council to provide consulting and oversight, according to the plan for assessment approved by the Consultant Evaluators. It should be noted that communications from both colleges and the University Assessment Council are upbeat and encouraging.

The institution and the Assessment Council are committed to continuing on the positive trajectory established since the 2004 visit. Programs without specialized accreditation report annually to their colleges and receive feedback. The colleges then report to the University Assessment Council. Colleges with specialized accreditation report annually to the University Assessment Council, which reviews the report and responds to the college. (See Appendix 14 for an example of a response to a college assessment report.)

A recent on-line seminar taught by Professor Linda Suskie, "Developing Your Own Tools and Strategies to Assess Student Learning," was attended by a mixed group of 20+ faculty from across the campus, a majority of them "not the usual suspects." While some evaluated it as valuable for its having reinforced knowledge, others thought it less so and were surprised that the on-line seminar presented very few new ideas.

Having assessment plans for all units in our Eberly College of Arts and Sciences is a triumph. These departments, many of them in the humanities, have not existed in a culture of assessment as have the professional programs, the STEM departments, and the business and engineering disciplines. Assessment plans have been developed and approved for every one of the 22 units in the Eberly College, and the first reports have been submitted. The Eberly College has already responded to each of the reports, and the University Assessment Council has reviewed both reports and responses.

The University Assessment Council met recently for our last meeting of the 2006-07 academic year. The goal for 2007-08 is to work with the Davis College of Agriculture and Forestry so that each of its units files an approved assessment plan with its associate dean, who then forwards it to the University Assessment Council for oversight. Given the improved climate for assessment on the WVU

campus and the changing faculty culture as evidenced by the sea change in the Eberly College, we fully expect such reports to be forthcoming.

The University as a Learning Organization
The University now perceives itself as a learning organization whose own learning can be assessed. In March 2005, more than 100 members of the Strategic Planning and Assessment Committee met to identify the academic objectives for West Virginia University during the next five years. Using data from the 2003-04 academic year and the fall of the 2004-05 academic year, as well as historical trends, this group analyzed the status of the University and future opportunities. The discussions led to West Virginia University's 2010 Plan: Building the Foundation for Academic Excellence, available on-line at www.wvu.edu/~2010plan/ . This plan identifies five goals with objectives and key indicators for each:

1. Attract and Graduate High-Quality Students

2. Recruit and Retain High-Quality Faculty Committed to the Land-Grant Mission

3. Enhance the Educational Environment for Student Learning

4. Promote Discovery and Exchange of Knowledge and Ideas

5. Improve West Virginia's Health, Economy, and Quality of Life

The Board of Governors approved the 2010 Plan in September 2005, and since October 2005, the Implementation Team has been meeting weekly to initiate the multiple actions identified in the plan. The first year of implementation focused on mapping existing assets, developing strategies to meet the long-term goals of the 2010 Plan, and enacting initial strategies. Throughout this phase, the current performances of existing programs at the University were evaluated in order to propose changes that will enhance their effectiveness. The 2006 update of the Strategic Plan is available at http://www.wvu.edu/%7E2010plan/documents/2006%20Highlights.pdf .

It is significant that assessment has moved to the forefront in University planning and is being used to assist decision-making for the University's most important projects and priorities.

One Notable Effort in Assessment: Foundations of Excellence in the First College Year

In addition to the Collegiate Learning Assessment, the University is participating in two other specific efforts to assess and improve student learning: the National

Survey of Student Engagement (NSSE) and the Foundations of Excellence in the First College Year (FoE), sponsored by the Policy Center for the First Year of College at the University of South Carolina. We await data from this year's NSSEE, a simple survey completed on-line by students.

After visiting the Foundations of Excellence display at the HLC Annual Meeting last spring, WVU applied for admission to the 2006-07 cohort of institutions to be chosen for this year's study. (The Higher Learning Commission recognizes the important assessment work done by the Foundations of Excellence and the Policy Center on the First Year of College.) Following the application submission and a phone call in which co-directors Betsy Barefoot and John Gardner spoke with the WVU senior leaders, WVU was selected to participate. The Associate Provost for Academic Programs and the Assistant Dean of Students for the First-Year Experience formed a small group of faculty, administrators, and students to attend the launch. Upon returning to campus, they selected the members of the Dimension Committees and Steering Committee and begin gathering data. Nearly everyone they asked to participate on the Task Force of 78 people – faculty, staff, administrators, and students – accepted. Throughout the year Dimension Committees have met at least twice weekly and have attended a number of larger FoE events.

West Virginia University has spent a full year assessing the first-year experience using key indicators and developing extensive data on student learning in the first year.

One of the most important documents to emerge from the year-long FoE initiative is the Philosophy Statement of the first-year experience:

> *The first-year experience at WVU focuses on the academic and personal development of all students transitioning to college. The first year has six goals:*
>
> *• To prepare students for a successful academic experience by fostering the development of teamwork, personal inquiry, and problem solving skills*
>
> *• To support students' intellectual relationships with faculty through enrichment activities, both inside and outside the classroom*
>
> *• To develop ethical behavior and personal integrity*
>
> *• To foster physical and mental well-being through responsible decision-making and behavior*
>
> *• To encourage civic engagement so students will learn the value of working for the betterment of their communities*

> • *To engage students in social, cultural, and academic experiences as part of a diverse community*

The Philosophy Statement will be used to guide the development of student learning outcomes in all courses taken exclusively or primarily by first-year students.

The Foundations of Excellence Task Force is currently completing its work, which has used evidence from EBI and other surveys. The FoETec library into which WVU has uploaded its data is a wealth of information for purposes of assessment. The Steering Committee will draft its final report in the coming months, and the implementation of the action items will begin in the 2007-08 academic year. To give the Commission the flavor of the action items that have resulted from this extensive year-long assessment, what follows are a few examples of action items that will likely move to the implementation stage in the upcoming academic year:

- Revise University 101, Freshman Seminar, using the Philosophy Statement, to include block scheduling, additional extracurricular contact with faculty, and assessment. Currently, UNIV 101 is taught in a variety of formats – as Adventure West Virginia (a week-long wilderness adventure format), as an academic seminar focusing on a subject of academic interest, as an introduction to a discipline, and as Honors UNIV 101. These various UNIV 101 sections do not have uniform student learning outcomes. The program needs to be revisited. (N.B. Adventure West Virginia has been rigorously assessed, however, and has recently won a Noel-Levitz retention award for its action research. See Appendix 15)

- Teach courses enrolling a majority of first-year students using a lower student-to-faculty ratio. First-year students, those students most accustomed to a low student-faculty ratio as a result of their high school experience, are often those placed in the largest university classes in the largest lecture halls. Students become convinced that no one will miss them if they do not attend class. Consequently, students develop bad habits, which are exacerbated by the impersonal nature of the large classroom experience. By implementing smaller classes and/or small recitation sections of large classes, students will be able to make connections with the faculty, be encouraged to become accountable, and become more successful.

- Provide better tutoring and other academic support, including mentoring by upper-division students, especially those in disciplinary honoraries.

- Improve advising by developing accountability measures and rewards for faculty advisers. Name "super advisers" in every discipline who can filter

information to other advisers in their unit. Provide training to all advisers across the University in issues that touch students, especially first-year students, including social and test anxiety, health and wellness issues, and ethical issues, including academic dishonesty.

WVU's liaison for the Foundations of Excellence self-study, Betsy Barefoot, is receptive to discussing with the Higher Learning Commission WVU's readiness and ability to develop and use assessment for continuous quality improvement.

Evidence of Student Learning
Licensure Rates
West Virginia University is proud to be able to present evidence of student learning by way of centrally-collected licensure rates. (See Appendix 16).
Of special note is the fact that in the last several years reported for the Compact with the State of West Virginia, WVU bachelor's degree students in dental hygiene and graduate students in counseling and dentistry and all passed their licensure exams at the rate of 100%. All other programs' passing rate is at least 80% with most above 90%.

Capstones and Surveys
Every undergraduate major has a capstone requirement, which is assessed departmentally. Every majors program has a graduating senior survey, which is collected at the college level. Every program either uses alumni surveys or is developing an alumni survey to make changes to curricula, resource allocation, etc. These assessments are reported centrally every five years to the Board of Governors.

Board of Governors Program Review
Every five years on a rotating basis the West Virginia University's Board of Governors conducts program reviews of every undergraduate and graduate program. In May of the year preceding the review programs are alerted that they will be required to submit a self-study in October. In the Fall semester members of the Undergraduate Council and Graduate Council receive the self-studies and use rubrics to focus their responses to curriculum and enrollment, faculty, resources, and assessment. In the Spring semester the decisions of the two councils are sent to the Board of Governors. (See Appendix 17 for a copy of the review rubric.) Recommendations are selected from among the following:

- Continuation of the program at the current level of activity, with or without specific action

- Continuation of the program at a reduced level of activity (e.g., reducing the range of optional tracks) or other corrective action

- Identification of the program for further development

- Development of a cooperative program with another institution, or sharing courses, facilities, faculty, and the like

If a program's five-year review lacks sufficient discussion of assessment, the Undergraduate and Graduate Councils normally require a two-year follow-up report to demonstrate that changes have been made to improve student learning outcomes assessment.

W/D-F Report
The administration is cognizant of courses that evidence a lack of student learning as registered by high W/D-F rates. The W/D-F rate report is run each semester, and those courses with rates that suggest problems with student learning are reported to the Associate Provost for Academic Programs, who then contacts the dean of the college in which the course is housed. The W/D-F report has spawned a special task force to deal with low levels of student learning in the Department of Mathematics. This task force has had retreats with the department and its members. The retreats have resulted in a number of initiatives, which will begin in AY 2007-08, including the following:

- Development of a new placement test to be used in place of ACT/SAT scores.

- Development of a slow paced calculus sequence that provides "just in time" supplemental instruction in trigonometry and algebra. (See below under "Mathematics" in Programmatic Improvements.)

- Hiring of an additional faculty member who is an expert in supplemental instruction and has worked with the Virginia Tech Math Emporium.

- Development of a standard syllabus with learning outcomes for each level of calculus.

- Coordination of all sections of each mathematics course across the department so that learning outcomes can be monitored and students can be prepared for the next course in the sequence.

Student learning in mathematics should show improvement as measured by the W/D-F report within the next academic year. In the Fall Semester, it is anticipated that similar planning will occur with the Department of Chemistry to address similar W/D-F problems.

Collegiate Learning Assessment
Three years ago the Higher Education Policy Commission of the State of West Virginia contracted with the Collegiate Learning Assessment (CLA) project to

offer the assessment at all interested West Virginia state institutions of higher education. West Virginia University began participating in this project in its second year, hoping that the exam would provide information regarding our general education curriculum as well as regarding the value-added dimension of the WVU experience. To date, the assessment information provided has not been considered valid because of difficulty securing students to give two hours of their personal time to the effort. Although WVU has even provided a monetary reward for participation, many of our millennial generation students have not believed the $25 worth their time. Furthermore, students who choose to take the test and earn the $25 recognize that they need not actually be dedicated to giving their best effort on the exam; they can fill in any bubbles and still leave the test facility with the hard cash. For the CLA to work at WVU, we need to refine how we select students to take the test, which is longer than a class period. We currently have a group tackling better ways to ensure that we get a stratified sample who will take the test seriously. Top administrators will meet next month in Charleston with representatives of the CLA to learn how to make adjustments so that the assessment instrument provides us with useful data.

Programmatic Improvements
Programmatic improvements are being made across the campus as a result of student learning outcomes assessment. What follows are selected examples of how WVU programs, both at the undergraduate and graduate levels, are using assessment to close the loop. (These excerpts come from the WVU Board of Governors' Five-Year reviews done during AY 2004-05, 2005-06, and 2006-07.)

UNDERGRADUATE PROGRAMS

Engineering, Biometric Systems
> *Assessment*: Feedback from the Industry Advisory Board and the Student Advisory Council told us that employers want students to be able to use Java
> *Closing the loop*: The CS area curriculum committee transitioned from C++ to Java as the primary language of instruction for the initial sequence of programming language classes.
>
> *Assessment:* Student Advisory Council and Senior Exit Surveys identified that some faculty advisors were more knowledgeable and helpful than others.
> *Closing the loop*: Advising training sessions were provided for faculty, advising responsibilities were consolidated to a smaller number of faculty with the time and commitment to provide high-quality advising services. Undergraduate advising is now explicitly credited in faculty workload, with faculty receiving credit for each advisee served.

Engineering, Chemical

Assessment: Surveys reveals that students and alumni did not feel that they were receiving adequate preparation in safety and environmental aspects of chemical engineering.
Closing the loop: A component requiring analysis of the safety and environmental aspects of chemicals involved in the junior project was added.

Engineering, Civil

Assessment: Graduating Senior Survey indicated concerns about the availability of advisors during registration as well as that advice and interaction was, for some students, limited to course selection.
Closing the loop: Advisers were given training at faculty retreats, and advising materials were developed to help faculty. Training and materials went beyond curriculum and scheduling and covered items such as time management, study skills, encouragement, mentoring, internships, and more.

Assessment: Graduating Senior Survey indicated that students might have a weakness in integrated design.
Closing the loop: Faculty approved a new course, CE 479, Integrated Design, which was offered for the first time in fall 2005. The course provides a comprehensive design experience that simultaneously incorporates many areas of the profession as students work in teams under the guidance of a professor and an advisory panel of practicing professionals.

Engineering, Computer

Assessment: Student Advisory Council and the Graduating Senior Surveys indicate that the Senior Design experience is rewarding but too intense when limited to the senior year.
Closing the loop: The department is currently developing an enhanced undergraduate design experience in an effort to address these concerns. The Lane Experience in Applied Design (LEAD) will extend the senior capstone design experience into the junior and sophomore years and feature increased interaction with private industry. Students will be assigned increasing leadership and responsibility as they progress through the design experience.

Engineering, Computer Science

Assessment: A computer System User Needs survey in fall 2004 identified system reliability as a significant issue in our computing systems.

Closing the loop: Systems staff shifted efforts toward supporting higher reliability of core services; as a result, the servers have been down less than 1% of the time for the last six months.

Assessment: The Student Evaluation of Instruction surveys and the Student Advisory Council identified high levels of dissatisfaction with CS 310 due to variation in the material covered vis-à-vis the published objectives of the course.
Closing the loop: The course syllabus was reviewed and greater adherence to the syllabus occurred in the following semester. As a result, students have reported a significantly higher levels of satisfaction with CS 301.

Engineering, Electrical
Assessment: Through the Student Advisory Council and Industry Advisory Board a high rate of broken equipment in the digital logic and microprocessor hardware labs was identified in fall 2004
Closing the loop: The department made a major effort to replace and upgrade equipment during Spring and Summer 2005. The fall 2005 report by the Industry Advisory Board reflected improvement

Engineering, Industrial
Assessment: 56% of students could apply calculus to an industrial engineering problem.
Closing the loop: Since the goal of 70% proficiency was not achieved, the instructor provided new home work problems and adjusted his teaching to make the topic more understandable. Following these changes, the percent of students with acceptable proficiency increased to 86% the following semester.

Assessment: 67% of the students could do confidence intervals and hypothesis testing.
Closing the loop: Since the goal of 70% proficiency was not achieved, instructors reduced the level of theoretical vigor and stressed proper application of regression analysis. A continuous review of statistical tools was introduced to help students understand the basic concepts, thus resulting in a 70% proficiency the following semester.

Engineering, Mechanical and Aerospace
Assessment: Both ABET and the Advisory Committee noted that there wasn't enough Computer Aided Design instruction at the sophomore level of the curriculum.

Closing the loop: CAD material was added throughout the BSAE curriculum as well as Computer-Aided design at the sophomore level.

Assessment: The Advisory Committee and a student focus group expressed problems with academic dishonesty, the use of instructor solutions manuals, and the prosecution of students caught cheating.
Closing the loop: A strong an sustained program is now in effect to curb these practices; however, an update in terms of surveys and more focus groups must be scheduled.

Foreign Languages
Assessment: Student learning outcomes in terms of speaking, listening, reading, writing, and cultural awareness are uneven.
Closing the loop: Various actions are being taken in German, Spanish, French, Russian, and Italian, including mandatory attendance at language tables and turning the former audio computer lab into a resource center for faculty developing their own materials, especially in the field of cultural literacy.

Geology and Geography
Assessment: The BA exit survey indicated that students find it difficult to form a cohort because they have so few courses together, thus impeding learning.
Closing the loop: Geology and Geography are creating additional team building experiences for undergraduates, including a club with extensive activities.

Assessment: There is no way to know what students in geology/geography learn as a result of their course work.
Closing the loop: A pre-test for new majors and a post-test for graduating seniors has been instituted to offer data on learning and to point to actions that need to occur to improve learning.

History
Assessment: Faculty discussion of student abilities and examination of grades revealed that students have difficulty analyzing primary sources in the capstone paper.
Closing the loop: The rubric for the capstone paper has been revised to that evaluating of primary sources is divided into evaluation of students' ability to 1) find relevant primary sources and 2) ability to analyze those primary sources. Further, the

Curriculum and Instruction committee will also revise the current capstone rubric so that it more clearly links to departmental learning goals.

Mathematics

Assessment: Ratings of W/D-F in Math 155 (Calculus 1) are too high.

Closing the loop: Math 155 has been split into two courses – Math 153 and 154 – giving students who do not score beyond the cutoff a better opportunity to succeed in calculus by slowing down the pace of the presentation of material as well as offering refresher lessons in trigonometry and algebra using the "just in time" method. Our hypothesis is that the W/D-F rate in both Math 153-54 and Math 155 will go down. Consequently, more students will be retained in STEM disciplines.

Nursing

Assessment: A December 2003 Continuous Improvement Progress Report to the CCNE identified five areas for improvement and documented progress in the following areas: Increased communication and involvement with stakeholders; work with regional campuses to assure congruency of mission and goals; development of resources for learning center; development of better clinical instruments; revised evaluation plan to meet CCNE standards.

Closing the loop: Update indicates that progress is being made in all five areas. (The Board of Governors designated the RN a "BOG Program of Excellence in 2005.)

Physics

Assessment: Alumni of the BS and BA programs in physics for the past five years were surveyed for their scores on the physics GRE subject exam. This survey as well as faculty and student focus groups revealed that Thermodynamics and Statistical Physics are problems.

Closing the loop: The Undergraduate Thermodynamics/Statistical Physics course will be taught by a regular member of the faculty to ensure teaching of the highest quality possible.   Next year's faculty and student focus groups and eventually newer graduates who have taken the physics GRE will be able to report concerning whether they believe the problems with thermodynamics have been remedied.

Psychology

Assessment: Exit surveys indicate that capstone experience options need to be expanded.

Closing the loop: Capstone experiences were expanded beyond internships and thesis papers. Expectations are for higher satisfaction rates to be indicated on the exit surveys.

Assessment: Psychology 202, Research Methods (Research Methods in experimental, developmental, clinical, and community-social psychology in the laboratory and the natural environment) was studied extensively.

Closing the loop: The review resulted in minor changes to improve the course, demonstrating the effective use of student learning outcomes assessment.

GRADUATE PROGRAMS

Agricultural and Environmental Education

Assessment: Too many students do not complete their degrees because their skills prepare them for gainful employment with or without the degree.

Closing the loop: Development of on-line options is helping to stem the numbers of students who do not complete this valuable master's program.

Agricultural and Resource Economics

Assessment: Learning outcomes and rubrics for evaluating presentations, writing, etc., have been implemented. Along with faculty meeting discussions, it was revealed that students did not understand as well as they should the quantitative and economic theory components of its curriculum.

Closing the loop: The program was restructured in 2005-06 to improve student learning in quantitative and economic theory. Data in coming years will demonstrate, the department expects, the effectiveness of its strategy.

Agricultural Sciences

Assessment: Faculty discussions revealed that students did not understand expectations and objectives of the program.

Closing the loop: A new orientation program was developed to communicate clearly expectations and objectives of the Ph.D. in Agricultural Sciences.

Assessment: Time-to-degree has been identified as a concern for the program.
Closing the loop: This national problem is under discussion by the faculty, which understands its seriousness. The loop has not yet been closed, but significant attention is being paid to the issue.

Assessment: Student exit surveys indicated that students desire an updated curriculum as well as improved stipends.
Closing the loop: Improved stipends is the desideratum of all graduate students. Ag Sciences improved student satisfaction, however, by adding new course topics, like molecular biology, functional genomics, food microbiology, and cell culture.

Counseling

Assessment: Faculty discussions and student exit surveys revealed that both students and faculty lacked a sense of the overall development of the student in the program.
Closing the loop: A student portfolio requirement was implemented to address this issue. The next Board of Governor's report will address data to see whether this initiative has solved the problem.

English

Assessment: Graduating student surveys revealed a need for a course in pedagogy, especially for graduate students teaching in the required undergraduate composition courses.
Closing the loop: ENGL 609 was developed. Evidence in terms of graduate student focus groups as well as evaluations of instruction in ENGL 101 suggest that the effort to improve students learning --- for both graduate teaching assistants and freshmen – is successful.

Assessment: A report from instructors of ENGL 782, Current Directions in Literary Study, as well as a report from instructors of ENGL 680, Introduction to Literary Study, state that doctoral students lack appropriate levels of analytic skills and research skills, respectively.
Closing the loop: Faculty have made interventions in the form of focused independent studies to address inadequate writing abilities, critical thinking, and research abilities of students in the program.

Pharmacy

Fall 2003 marked an ACPE on-site evaluation. *Assessment:* Recommended changes to improve program quality included the

need for strategic planning and the need to improve pharmacy practice experience.

Closing the loop: A significant curricular change has provided additional experiences for introductory pharmacy practice. Further, Pharmacy is partnering with the Office of Civic Engagement to provide many opportunities for more out-of-classroom experiences.

Speech-Language Pathology and Audiology

Assessment: Faculty meetings revealed that student progress was not being effectively monitored.

Closing the loop: Standard procedures to review and act on assessment data have resulted in a process that requires each student to produce a Formative Assessment Binder, which documents student progress through the program.

Conclusion

West Virginia University has seized the opportunity provided by the 2004 HLC team visit to reassert its commitment to assessment. The University has recognized that it must be accountable to all stakeholders and be able to demonstrate how well WVU students are learning. In the period between 2004 and 2007 the University Assessment Council has been restaffed and is working hard to ensure that faculty understand why assessment is so critical.

Assessment has become part of the culture, as evidenced by the requirements of the new General Education Curriculum, the University strategic plan, and the Foundations of Excellence in the First College Year project. Reviews by the General Education Curriculum Oversight Committee, the Faculty Senate Curriculum Committee, and the Board of Governors self-study process place assessment front and center. All University decisions are data driven, and there is an insistence on transparency of the process and on continuous improvement.

The fundamental questions the Higher Learning Commission lists as "prompts for conversations about students learning and the role of assessment in affirming and improving that learning" are constants on our campus. The HLC's questions (in bold) and WVU's answers (in italics) are as follows:

How are your stated student learning outcomes appropriate to your mission, programs, and degrees?
> *WVU is conscious that learning outcomes must be appropriate to the mission, programs, and degrees offered by a research extensive land-grant institution offering degrees ranging from the bachelors to the doctorate. Various bodies, including the Faculty Senate Curriculum Committee, the Faculty Senate General Education Oversight Committee, and each college's curriculum committee and Dean's Office exercise oversight to ensure that stated student learning outcomes are appropriate to mission, programs, and degrees.*

What evidence do you have that students achieve your stated learning outcomes?
> *Evidence gathered through direct means (e.g., evaluations of capstone projects and scores on licensure exams) and well as indirect means (e.g., alumni and employer surveys) indicate that WVU students have been well served by the education they have received here.*

In what ways do you analyze and use evidence of student learning?
> *WVU programs collect and anlyze evidence for reporting purposes, for curricular change, and for other kinds of improvement in student*

> *learning, like implementing supplementary instruction for mathematics and chemistry.*

How do you ensure shared responsibility?
> *Responsibility for assessment is demanded by all at WVU, including administration, for administration insists on assessment for its own projects, like the University's strategic plan. Faculty Senate, departments, colleges, Undergraduate and Graduate Council, task forces and steering committees share responsibility for assessment.*

How do you evaluate and improve the effectiveness of your efforts to assess and improve student learning?
> *A focus on student learning and its evaluation is ensured by specialized accreditation, five-year Board of Governors reviews, annual faculty discussions focused on assessment, and a cultural change that demands discussion of student learning at all levels of the institution: in student affairs as well as academic affairs.*

To put an even finer point on the issue of how WVU has become an assessment-centric institution, one may return to the language of the 2004 Assurance section of the Consultant-Evaluators' report cited on page 1 of this follow-up. Thanks to the assistance and encouragement of the Higher Learning Commission visiting team, the WVU Assessment Council has now developed an approach to assessment that is engaging the full support of the faculty and thus ensuring a high level of quality in program-level assessments across all departments in the University. Further, graduate programs have recognized that their desire for students to become published scholars and contributors to their fields can be stated as learning outcomes: "At the completion of the program students will be able to write a publishable research paper" or "At the completion of the program students will be able to present the results of their research at a meeting of a professional organization." Those learning outcomes are not difficult to measure.

Faculty now understand the process of assessment. More experienced faculty are discovering that even old dogs can learn new tricks about improving student learning by using assessment. Faculty fresh out of graduate school often come to the job with a knowledge of and commitment to assessment.

West Virginia University is a better institution due to the greater attention on assessment.