



*Association
of American
Colleges and
Universities*

**Assessment of Liberal Education Outcomes:
Findings from Interviews with Faculty, Administrators, and Students**

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Executive Summary

In May 2005, six “value-added assessment collaboratives” received grants from the Teagle Foundation to work over three years on assessment projects. The Association of American Colleges and Universities (AAC&U) also received a grant from the Teagle foundation that supported, in part, interviews on fourteen assessment project campuses in early fall 2006 about 1) how the campuses build faculty support for assessment and/or 2) the barriers that slow progress on assessment. Sharing information from the interviews was viewed as a way to allow campuses to see what issues were held in common and the strategies others were using that might be adapted to local purposes.

The interviews revealed growing campus engagement in creating assessments that serve to improve student learning. In the best cases, campuses are developing common expectations for assessing liberal education outcomes across programs, collecting data about student learning, and making improvements informed by evidence. The universal thread in liberal arts institutions of strong faculty commitment to student achievement provides hope that enthusiasts will continue to enlist others in their efforts to assess systematically how well students have learned and how effective their programs are.

Specific findings:

- The term assessment is interpreted in many different ways among faculty, administrators, and students on the campuses. A fundamental challenge to campuses is to build a clear local understanding of what assessment means so that discussions are productive. Campus histories and issues shape individual attitudes toward assessment with consequences that may require attention.
- The rationale for conducting assessment should be communicated to everyone on a campus, careful attention paid to the level(s) of assessment being discussed (from the individual student up to the institutional level), and how assessment data will be used. The interviews revealed a number of important audiences for data on student learning. Concern that student learning data will be used to evaluate faculty performance is especially important for administrators to address.
- That faculty should be responsible for assessment of student learning was a consistent, powerful message from all of the campuses visited. However, help in planning assessment is needed for faculty with less background in assessment and for hard-to-define outcomes, such as critical thinking in the disciplines or ethical reasoning. A number of campus-developed assessment processes, both formative and summative, were mentioned. The report includes a concise list showing how faculty are responding to challenges of assessing student learning.
- Improving campus climate and capability for assessment requires both a willingness to develop clear expectations for learning and resources to foster and verify the learning. All of the campuses have strong commitments to teaching undergraduates and conduct at least some faculty development. The promotion and tenure processes on some campuses are not yet fully aligned to reward faculty time spent on teaching improvement. Faculty and administrators on some of the campuses have worked together to achieve the flexibility needed to include the scholarship of teaching and learning as part of “what counts” for promotion and tenure.
- Students commented that they appreciate faculty efforts to help them learn, including formative assessments that provide advice for improvement. As rubrics are explained, even subtle differences may influence whether they annoy or help students as they learn.

The interviews showed that resistance to assessment among faculty remains. Clarifying the rationale for assessments and explaining how data will be used are fundamental prerequisites for progress in campus assessment practice. The numerous examples of process and practice enhancements collected in the interviews should assist campuses as they invent local solutions.

Assessment of Liberal Education Outcomes: Findings from Interviews with Faculty, Administrators, and Students

Introduction

The Teagle Foundation actively supports liberal education through a program of grant making, including grants to support assessment. In May 2005, six “value-added assessment collaboratives” received funds to work over three years on assessment projects of particular interest to the collaboratives. Descriptions of the projects can be found at <http://www.teaglefoundation.org/grantmaking/grantees/vaafull.aspx#vaa05>.

Assessment is, at times, a contentious issue on campuses. Moreover, the context for the projects of the value-added assessment collaboratives is both complex and changing. This report captures “work in progress”—both in terms of the sheer variety of the assessment projects and the many concerns on campus about the purposes and practices basic to assessing learning gains over time.

AAC&U received a grant from the Teagle foundation to assist in several ways with the work of the collaboratives. A working conference planned by AAC&U, based upon suggestions from the collaboratives and held in February 2006, brought together representatives from more than thirty campuses to discuss assessment, outcomes, and leadership for change.

After the working conference, AAC&U proposed to Teagle to gather information directly from campuses about 1) how they build faculty support for assessment and/or 2) the barriers that slow progress on assessment. Sharing information from the interviews was seen as a way to create a “collaborative of the whole,” allowing campuses to see what issues were held in common and the strategies others were using that might be adapted to local purposes. A decision was made to write the summary without attributing the information to particular individuals or campuses. The summary is being distributed to campus project leaders who will further distribute the report as they choose. Individuals at AAC&U and at the Teagle foundation also will receive the report. The two interviewers, Ross Miller and Jack Meacham, wrote this report and will keep the sources of comments cited in the summary anonymous.

A common question among faculty still learning about assessment is why course grades are not a sufficient assessment of student learning. For example, a dean, paraphrasing faculty concerns, says: “I would know better than anyone how my students are doing. I’m in the best position to know. That’s what I do when I give grades.” Course grades can sometimes serve in limited ways as assessment data, when there is good alignment between the student learning objectives and student products such as exams, papers, and products that document attainment of specific objectives. Often, however, the holistic

nature of grades masks the varied levels of attainment of several outcomes covered, especially in more complex assignments.

In some cases, grades are not a *valid* assessment of student learning outcomes. For example, grades can imply that students are learning comprehensively and well, even though a course has not included certain objectives that are often expected. As a second example, perhaps the students are earning high grades because they learned material and attained the student learning objectives in a prior course (perhaps in high school) or a course being taken concurrently. Third, perhaps the faculty member is teaching to the student learning objectives that have been established for this course, but the exams and other assignments fail to test the students' attainment of those particular learning objectives. Fourth, course grades often include components not directly related to student learning such as attendance, class participation, and extra credit assignments.

Grades' characteristic blending of different achievements into some form of averaged judgment obscures specific analytical information needed to guide improvements. "Closing the loop" by using data to guide change is always a challenge and grades may be too blunt an instrument to be particularly helpful. One dean says, "We do have some departments that are testing students to see if they have acquired the skills to get through the program. But the focus of the discussion is on the students who are weak. The faculty are not using the test results as a way of reflecting on or improving the program."

Another common question among faculty is whether surveys of student satisfaction with their learning experiences and of student perceptions of how much they have learned can be valid assessments of student learning outcomes. Unfortunately, it is often unclear whether such measures do indeed reflect that students have learned a lot, including attaining the learning objectives established for the course or program, or whether they reflect primarily the students' feeling that the professor was entertaining, friendly and approachable outside of class, or taught a course that yielded an easy "A."

While some interviewees commented on the usefulness of National Survey of Student Engagement (NSSE) and Cooperative Institutional Research Program (CIRP) data, there was recognition that such data are not direct measures of student learning but rather student *perceptions* of campus climate and learning. A dean comments, regarding self-assessment of learning by students: "Students don't know enough about, for example, leadership or scientific literacy, to be able to engage in self-assessment."

The interview process

The findings in this report are based on interviews conducted on a sample of fourteen campuses within the "value-added assessment collaboratives" in early fall, 2006. The respondents included faculty, administrators, institutional research staff, and students on the project campuses with some connection to the Teagle project. In addition, others on campus not directly involved with the Teagle assessment projects were interviewed, for example, members of curriculum committees, faculty governance leaders, and faculty critics of assessment.

Quotations are provided to the best of the interviewers' transcription capabilities. It is possible that quotations are not exact, but every effort was made to capture the meaning of what was said.

This report is organized loosely around major categories of concerns that were voiced by faculty respondents as they discussed the assessment of student learning outcomes on their campuses. These categories of concerns have been set forth roughly chronologically, as these concerns might arise on a campus, from initial questions such as "what is assessment?" to questions that might arise after assessment data have been collected and interpreted—the "so what do we do now?" questions.

Qualifications and cautions

Some cautionary notes are in order: The "campus concerns" that were encountered varied greatly from one campus to the next. Some campuses have just begun planning for assessment of student learning outcomes, while several other campuses are far along in the implementation process. Faculty questions and concerns that are on target and insightful on one campus might have little or no significance on another campus. The "campus solutions" that have been included might be readily transferable and workable on other campuses, or not at all. How assessment of student learning outcomes is implemented must grow out of each campus's history, traditions, and culture.

While much of this summary consists of describing what the interviewers heard on the campuses, the authors sometimes insert suggestions based upon their experiences and knowledge from working on and visiting multiple campuses. We attempted to keep such "editorializing" to a minimum.

Part I: The Assessment Challenge on Campus: Concerns and Emerging Solutions

1. What is Assessment?

Preview: The term assessment has many different meanings both among campuses and at single institutions. Working to clarify language is an important step for campuses to take. A variety of specific issues, from campus history to worries about the consequences of standardization of outcomes and assessments may impede progress on a campus's selected assessment initiatives. Administrators and faculty leaders can build support for assessment planning and conduct by clearly explaining how assessment is being developed on campus and for what purposes. They can also facilitate solution-oriented discussions of issues in assessment and learning as they arise.

A. Campus concerns and problems to solve

The meaning of assessment

In talking with individuals on the project campuses, the authors discovered that the range of meanings attached to the term "assessment" was strikingly broad. Because using the term assessment may raise greatly varied first impressions, specifying the particular kind of assessment under consideration at any given moment may be needed to bring focus to discussions. For example, "assessment of student work within courses" and "assessment of institution-wide outcomes for accreditation." can engage faculty and administrators in quite different ways. Talking about "*measuring* outcomes" may also be problematic. For many on campus, the word "measure" is associated with standardized, quantitative assessments that they believe do not capture what is important in college-level learning.

Perhaps the most common concern about assessment and evaluation for faculty on campuses everywhere, is that assessment of student work (a formative, coaching function) will be "hijacked" into evaluation of faculty for promotion or tenure (a summative, judging function). Some campus leaders work carefully to ensure that a "firewall" keeps these two very different activities completely independent, believing that without that separation, neither will function effectively.

It may be useful to distinguish assessment from evaluation. A main purpose of assessment is to improve academic programs and strengthen student learning and it should be carried out by those who participate in the programs. Assessment, conducted properly, provides information to improve learning or practice in a formative way as the learning and practice are in process. Evaluation is often thought of as a summative assessment, conducted to judge the quality, worth, or value of learning, academic programs, or practice at a specific point in time. Formal evaluation may be completed by individuals or groups from outside of the academic programs but the results should still lead to improvement of programs or strengthening of student learning.

History and frustration

An accreditation visit twenty years ago resulted in elaborate planning for assessment on one campus, but then nothing happened. Resources were not provided to support the planned activities. Many faculty still remember this history and worry it will happen again. Individuals at several campuses commented on their frustration with providing reams of data that seem to go nowhere and that do not contribute to improved resources for student learning.

Outside interference

Government interference and outside testing are common worries. The idea of having a federally designated testing program for judging effectiveness is particularly resisted. Assessment is viewed by many as “top down, external, blaming, looking over faculty shoulders, and threatening to autonomy.” “To the extent that assessment is seen as imposed, there will be rebellion.”

Inappropriate testing and comparisons

Shortcomings of standardized testing and inappropriate use of data from such testing drew several comments: A dean: “I have no problem with accountability. But on our campus no students take the same set of courses. So there is no common set of knowledge. No two transcripts are alike, they have different sequences of courses. You can do assessment with standardized tests at the elementary and secondary level, but not at the college level.” Another dean, summarizing faculty concerns: “If we measure, then we start comparing institutions.”

The time factor

A very common problem is the worry about the time required for assessment activities. Assessment is often viewed as an “add on,” “one more thing to do,” and redundant with grading, so a waste of time.

Low priority

One faculty member argued that assessment is not one of a faculty member’s main tasks. Faculty focus should be on delivering courses, talking to students, preparing Fulbright and other honors applications, and doing research. Another mentioned that private schools are “protected” from measuring outcomes.

Comparisons on campus

There were worries expressed about how assessment data could change the relationships among faculty on campus – especially if assessment moves in the direction of evaluating colleagues. A department chair, reflecting on assessment of what students are learning: “I would start thinking, do my numbers look good, compared to other faculty who teach this course.” A senior faculty member: “There’s a momentum growing among the faculty to hold each other accountable. But the challenge is how to present assessment in a way that doesn’t make people feel targeted.”

Consequences of standardization

Both faculty and students are concerned that an unintended outcome of the assessment process will be increasing homogeneity of the curriculum and pressures upon faculty to “teach to the test.”

- A faculty member: "There is a danger that the faculty will become less willing to try innovation and experiments in teaching."

This is also a concern of some students:

- One student—“It’s better for professors to teach what they are passionate about.”
- Another student: “The ‘outcome’ should be that you can now engage in a process of learning, not that you know certain things that can be tested.”

B. Campus solutions

Confronting the language

Many faculty and administrators are aware of the potential for confusing assessment with evaluation. It is important, they say, to be alert to the potential of national issues in education for framing how assessment is viewed by faculty. Some suggest that a good approach is to avoid using the word assessment and, instead, to reframe what needs to be done in terms that are more readily understood by faculty. Faculty involvement in the assessment process can help ensure that the focus stays on improvement of student learning and not on evaluation of campuses, programs, courses, faculty, or students.

- A senior faculty member, "The more we do assessment and the less we use the word, the better. We are doing assessment on our campus, but under other names."
- A senior faculty member: "Assessment is a word that most faculty on our campus recoiled from. They saw it as being the same as high stakes testing. Our president had to reassure they faculty that these are not the same."
- A dean: “Don’t call it assessment. Call it reflective teaching. Our faculty are really doing this all the time.”
- An associate dean: "Assessment is best understood as assessment of the program, not the faculty."

Moving toward a new understanding of assessment

- A dean: "Quality of teaching has been important on our campus, but the context was primarily one of focusing on faculty performance. We still have a way to go in thinking about teaching in terms of what students learn rather than how faculty perform."
- A professor: “Most people agree it would be nice to know if we’re achieving what we set out to. But people get nervous—they think they’re being evaluated, assessment is seen as intrusive and top-down. What can help, is for faculty to agree that assessment helps them, for example, to see *what they can do less of* and so the faculty become better able to redirect their efforts to where it matters more.”
- Associate dean: "Engaging in assessment means becoming more reflective and articulate about our teaching. It means asking how we can make use of what we

are already doing in more effective ways. The challenge for us is to look at what we are doing and ask, is this the most effective way?"

- A dean: "Assessment is about asking two questions: First, what should every major be able to do or know? Second, how would you know that your students are achieving that?"
- An institutional research person: "A standardized test would be the worst thing to happen here. It's better to do assessment in the form of a broad conversation about general education skills and asking, 'are we successful in teaching these?' Such a conversation gives us a forum for giving the faculty some key data and letting them react to it not as individual faculty or as department members but *as citizens of our institution*. So now the faculty who have been involved are gung-ho and are becoming more fully involved."

2. Why Engage in Assessment of Student Learning Outcomes?

Preview: Public institutions increasingly are hearing from state legislatures that future funding may depend, in part, upon proving their instructional effectiveness. While private institutions may have fewer such pressures, there are still stakeholders to whom they may need or wish to provide data on student achievement.

We found that faculty on a significant number of campuses believe that their campuses' academic programs are already strong and that even when programs are slightly lacking, improvement is a naturally-occurring process driven by local standards. Faculty do see themselves as responsible and accountable, but to themselves and each other, not to outside authorities. Some faculty believe that adequate procedures for assessing academic programs are already in place, for example, examining students' grades in courses and surveying students' satisfaction with their education.

Some faculty members observed that they worked in a campus culture where students were doing just fine and there was no obvious need to change, which led to the conclusion that there was no need to gather data on student learning. One faculty member also commented that when a campus feels that it and its students are somehow "special," efforts to move toward assessment are impeded.

However, there were other voices suggesting multiple, important audiences, both internal and external, for assessment data on student learning. Building a case for sharing data may be as simple as identifying who needs data and explaining an institutional responsibility or regulatory requirement (for example, providing disaggregated data on various groups of students to align campus programs and services with diverse learning needs or sharing data on program learning outcomes for regional accreditation given ever-higher expectations for direct measures of student learning).

A. Campus concerns and problems to solve

Little intent or motivation to engage in assessment

Some comments expressing the reasons assessment is not needed or is resisted:

- A faculty member: “We don’t need to do assessment on our campus—perhaps some other colleges need to do this, but not our campus.”
- A dean, describing faculty concerns about assessment: “How do we know our students are learning anything? We know because we see the results, we see what our students do once they leave here.”
- A faculty member commented that questions about the college were generally satisfied with “input” data like incoming student test scores and “output” data like Fulbright, Truman, Watson, and Goldwater awards.
- A mid-level faculty member: "We are less reflective about student learning than I would like our campus to be." Interviewer: "Why?" "Because we're really sure, really confident."
- A senior faculty member: "Many of our faculty would say, as a liberal arts professor, it's beneath me to be teaching skills. I teach the broader picture. And so we assume that through a progression of courses, students will get those skills, for example, writing, public-speaking, and analytical skills. But it's not happening and this is academic dishonesty. As faculty we don't like to grade long writing assignments. Our sense of academic freedom gets in the way. So we don't give a writing skills test after the freshman writing course."

Under prepared students

A concern felt on some campuses is captured in comments such as these:

- A dean: “Assessment comes at a time when a far greater proportion of our students are not coming from rigorous private and public high schools. The timing of assessment is bad—more of our students are less-well prepared.”
- A faculty member: "There is a danger that the institution will cease taking chances on less well-prepared entering students."

These comments on under-preparation reveal a worry that campus assessment may identify increasing numbers of weak students and those assessment results might somehow harm the campus. Instead, assessments should help to identify academic programs that aren’t effective in providing all students, regardless of the quality and success of their preparation for college, with the knowledge, skills, and attitudes that the campus’s graduates are expected to attain. Before beginning the assessment process, there should be clarity and consensus on campus that a finding of disappointing assessment results will not be explained away by blaming particular groups of students, but instead will be taken as diagnostic of which academic programs might need further examination to strengthen their work with under prepared students and how this might be done.

B. Campus solutions

Viewpoints on “Why engage in assessment?”

Many faculty and administrators shared their own views on why assessment is worth doing. Two individuals suggested that data on student learning helped their campuses compete with peers and nationally ranked colleges and universities. An institutional research person commented: “It’s a differentiation. I believe over time the rising cost of tuition is going to come head-to-head with ‘show me what the students are learning.’ And some institutions are going to have a good way of telling that story. Some schools will do it right, others won’t, and by the time the latter figure it out they will have lost market share.”

Much more common were comments that related directly to improving faculty work and student learning.

- “Assessment informs the education process and is a rational way to guide change.”
- “Assessment can make faculty lives easier by helping faculty to do and achieve what they wish with students.”
- “Faculty lives are improved by having data.”
- “Assessment makes for smart and efficient work.”

Some individuals commented that assessment is inherently interesting and rewarding. “It is intrinsically interesting to find out if we are achieving what we claim.” The same person also valued National Survey of Student Engagement (NSSE) and Cooperative Institutional Research Program (CIRP) data. In a conversation about the scholarship of teaching and learning (and assessment), one person stated, “The incentive to work on teaching is the inherent reward of ease in your work.” More than one administrator mentioned attempts to relate assessment of student learning to faculty interest in conducting research – generating hypotheses and questions, gathering evidence to support or answer their inquiry.

Explaining “Why?”

Many faculty and administrators have thought deeply about assessment of student learning outcomes and how this need can best be presented to their campus communities. A basic strategy, mentioned frequently, is to begin by asking “how do we know” that students are learning. The responses often point to student assignments and activities that provide direct evidence of student learning.

Here is how some interviewees expressed the rationale for why the faculty on their campus should be engaging in assessment of student learning outcomes:

- A dean, paraphrasing the faculty’s concern: “We are a quality school. We’re not the kind of institution that needs to do this.” The dean’s reply: “We *are* a quality school, but we can always get better. Plus the students are changing and the world is changing.”

- A senior faculty member: "A better way to present assessment is to say, we do all of these things that are distinctive to our campus. We simply want to make them more effective."
- A dean: "How do we know our curriculum has really changed the students?"
- A senior faculty member: "Assessment has always been a part of my teaching, but it was tacit knowledge for our generation of teachers and students. Now we are being asked to be more explicit about learning goals and topics to cover. So the current emphasis on assessment is just a further step along this line."
- A senior faculty member: "In the past, the one person to blame for students not meeting learning goals would be myself, because at a small school you would see the same students repeatedly in several courses. If you saw deficiencies in an upper-level course, you would know where you had taught this to the students. So this gives you a perspective to realize how you might change the lower course. But even if you didn't teach the lower course, in a small department there are lines of communication about what works in teaching and what hasn't, that is, you can talk with the other two or three department faculty. But this breaks down as the campus grows."

Assessing institution-wide outcomes

Several faculty recognized that assessment of student learning could be important even on a campus where all the programs are excellent and all the faculty are great teachers. For example, it might be the case that too few or none of the programs or faculty are teaching towards certain learning goals that are explicit in the campus's mission statement. As one faculty member said, "Assessment is about what the faculty are doing *as a group*." Other comments:

- A faculty member: "Assessment is not about assessment of individual faculty or students. Assessment is asking the faculty to consider what the institution *as a whole* is doing for its students."
- A dean, regarding assessment of the first-year program: "If we're preparing the students in a different way, we ought to be able to recognize this in the students in the subsequent courses."
- A dean: "As a campus, we could have a great program, but some students might deliberately avoid this, that is, pick the easiest courses. If so, we need to know this."

Audiences suggested for campus assessment data

- Parents and prospective students – often cited as an institution's chief obligation
- Accreditors, both regional and specialized, although confusing signals about the kind of data that are acceptable can complicate campus planning and action
- Foundations that require data to assess work completed under a grant
- Employers and other community partners
- All faculty, students, and administrators

3. Who Does Assessment of Student Learning Outcomes?

Preview: In spite of faculty fears of assessment imposed from outside campus or by administrators, faculty members were mentioned most often during the interviews as the on-campus actors for assessment. Alternatives to imposed, standardized testing of student learning may well be developing through these many related, even overlapping efforts. The “quantum leap” that is need to make these efforts more useful to institution-wide improvement is systematic data collection, aggregated for different levels, from the student level to the course, program, and institutional levels.

A. Campus concerns and problems to solve

It is very clear that faculty believe that assessment is theirs to do (or not, if that is their decision).

- A senior dean, "On our campus there is a long-standing suspicion of any interference by the administration in the curriculum."
- A dean, summarizing the faculty objection to assessment: "The classroom is mine."
- An institutional research person: "The faculty expect to control what is happening with their students in their classes."
- A faculty member: "People are protective of what they do in their own classroom. They don't want to be told what to do."

B. Campus solutions

On the other hand, many faculty and administrators recognize that the solution to this concern about autonomy is that the faculty must become more involved in the assessment process themselves. If assessment of student learning outcomes is going to happen, then the assessment process should be developed and guided by those who are responsible for the academic programs that are being assessed—the faculty.

- A dean, "Assessment has to be done by those who benefit the most—the faculty—not by an institutional research office."
- A senior faculty member advises: "Don't appoint a guru to carry out assessment. Instead, pay attention to feelings about who owns the curriculum. You must give everyone a chance to participate from the beginning and a sense of ownership in the process."

Who does assessment?

Many different individuals and groups are engaged in assessment activities on the campuses visited:

- Writing programs and instructors, both in general education and the major
- Institutional research offices and/or assessment directors
- Newly post-tenure faculty fresh from faculty development experiences
- Department faculty discussing student work, including “before and after” comparisons of work on assignments revised through faculty development workshops on assignment design

- Departments analyzing the results of senior seminars, assignments, capstone projects, internships, etc.
- A core group of enthusiastic faculty, often willing to share their experiences and results with others
- First-year seminar faculty and directors, responsible for assessing program effectiveness
- Faculty associated with specific general education outcomes like written and oral communication, quantitative literacy, ethical reasoning, etc.
- Faculty committees with responsibility for creating assessment plans
- Professional programs and their faculty
- Individual faculty and their mentors
- Faculty formally or informally connected with “scholarship of teaching and learning” efforts
- Faculty using classroom assessment techniques (CAT) and/or electronic courseware that collects student responses to readings, assignments, etc.

Most of the assessment activities discussed during the interviews were conducted by faculty. The extent to which there were feelings that these local assessments were “imposed” was not clear. Some interviewees mentioned that faculty were almost universally interested in data about student learning whenever distributed on campus. While arranging for students to take the Collegiate Learning Assessment (CLA) was not easy, that task typically was facilitated through an administrator’s office, perhaps with some help from faculty serving on an assessment committee. (N.B.: The CLA, a fairly new, qualitative standardized test, is being administered in conjunction with several of the six projects.)

4. How Can Assessment Best Be Conducted?

Preview: A large number of faculty raised excellent questions about the mechanics of the assessment process, how and when this work will be carried out, and by whom. The difficulty of specifying goals for certain outcomes of liberal education (such as critical thinking, civic engagement, or ethical responsibility) is a very common concern. Another leading concern is that assessment will (or does) take too much time. This is especially a problem when assessment efforts seem to be redundant with other processes or unnecessary (refer to the Preview of section II, above). A number of different solutions to these and other concerns were mentioned, including a variety of assessment techniques currently in use on the campuses visited.

A. Campus concerns and problems to solve

Resource concerns

There is faculty concern about the time and effort that will be needed to engage in assessment of student learning outcomes with the intensity and the desire for quality that faculty aspire to in all of their work:

- A senior faculty member involved with curriculum development: “The committees met for years to design the new curriculum. Now we’re all concerned with implementation—with reviewing course syllabuses, staffing a sufficient number of courses, strengthening pedagogy for teaching new material and at different levels. The questions of whether—after we have fully implemented the curricular changes—they will yield measurable returns in terms of student development and performance that one can be confident about and of how to make adjustments to the curriculum in light of eventual assessment My consciousness has not currently been filled with assessment.”
- A mid-level faculty member: "Faculty are already feeling under time and work pressure. Teaching has become teaching plus research."
- A dean, "Our campus already over-analyzes. This can wear people out."
- An institutional research person: "We're not as far along as we should be. We need another half-time or a full-time person. And we can't have people picking their own topics and leaving the assessment committee after a year."
- A dean, paraphrasing what the faculty say: "Assessment is too difficult for the faculty to do. We need additional staff."
- A faculty member: "I was worried about collecting a lot of data and having to review it."
- A senior faculty member: "We would resist assessment because of the work of reading a lot of papers . . . although this could lead to an interesting conversation. . . . There's a tradeoff between using standardized tests with no faculty input on questions and letting the institutional research office do assessment and the faculty not likely to value the results, versus learning more with more labor- and time-intensive techniques but these would have an impact on faculty workload. Perhaps we could hire people to assist the faculty with assessment.”

Faculty on some campuses worried about the impact that assessment data might have on department lines and resources.

- A senior faculty member: “A natural inclination among all the faculty is to ask, wait, what are the implications of assessment for resources?”
- A dean: "The faculty at our college are notoriously political. People think ahead about the long term FTE (full-time student equivalent) implications, about the need to hire people to take care of problems. So some people don't want to find out that we have a problem. For example, there might be people not in the math department who don't want to support more hiring in math."
- Another dean: "The problem or issue is the association between student enrollment flow and FTE allocation. Without this, people could talk more honestly about what they want in students' education." This dean suggests that it can be good practice to begin the process by assessing a learning goal with minimal resource implications, “a politically neutral category to start with,” such as critical thinking.

Measurement concerns

Many faculty are concerned that the goals and objectives of liberal education they hold for students cannot be validly and reliably measured.

- A dean, describing the faculty concerns: “There is skepticism about the ability to measure what the faculty feel is important to be teaching.”
- A dean: "The one place our campus gets hung up is how to measure the outcomes, can it be done?"
- A senior faculty member: "For example, critical thinking and ability to synthesize might make sense within one's own discipline, but when you cast the net broadly enough to include all the disciplines on campus, these become vacuous."
- A dean: “I think we do assessment, but not in an organized or reportable way. We’re a small campus with departments of eight or ten or six. We know our students well. We see our students and know if they can’t write. Is that enough? No. We haven’t asked departments to come up with evidence. But that doesn’t mean our faculty don’t look at students in a self-reflective, conscious way. But it’s hard when someone says show me the evidence.”

There are, in addition, faculty concerns with the idea of “value-added” assessment:

- A faculty member: "I'm concerned about the validity of value-added, pre-post assessment data, given all the interference in the lives of students between the ages of 17 and 21. How can our campus and we as faculty take the credit for any changes?"
- And an institutional research person wonders about "how much we've contributed" towards the difference between pre- and post-measures of student learning.

B. Campus solutions

Resources

Few concrete solutions for these concerns were mentioned in the interviews. On a few campuses (known to the authors), faculty involvement in the assessment process is facilitated with reductions in teaching and other responsibilities and with stipends or merit raises for contributions that extend beyond the usual faculty responsibilities and expectations for faculty. It’s important to recognize that assessment of student learning outcomes is not a one-time occurrence but a continuing campus responsibility, and so campus resources that are intended to facilitate assessment will need to be provided on a sustained basis.

Having an institutional researcher (or an IR office) available to help faculty was mentioned as very positive and individual institutional researchers were praised in a couple of interviews.

- A junior faculty member: “Faculty have a lot on their plate. So having the institutional research office involved is helpful.”
- A dean: “I can’t emphasize enough the importance of having a full-time institutional research person, even if only one person. Otherwise, I can have the full support of a faculty member in chemistry, but he says, ‘but I don’t know how to do this.’ Now, if people have a question about assessment, there is someone to talk with.”

The movement toward “course-embedded” assessments as the primary source for direct measures of student learning gains over time is, in part, based upon the rationale that such assessments do not require extra design and administration time beyond what is normally required for a course or program. With the assessments also linked to grades and course credit, student motivation for doing well on course-embedded assessments is usually higher than for non-credit, out-of-course assessments.

Measurement and creating assessments

Many “how to” concerns arise because many (most?) faculty have not gained experience with assessment design during their graduate and disciplinary training. However, faculty in some social science disciplines and education departments are often quite experienced with using and creating valid and reliable assessments of knowledge, skills, and attitudes. Colleagues are often very willing to share their expertise among peers.

Course-embedded assignments and assessments have the potential to provide evidence of student learning at the individual and course level especially when designed with specific outcomes in mind and then analyzed for evidence of those outcomes. Some assignments are significant enough to provide information useful for course-, program-, or institution-level assessment.

Locally-developed assessments *are* providing data to strengthen academic programs and improve student learning on some of the campuses. Campuses have worked to ensure high validity and good inter-rater reliability, both made possible through cooperative faculty discussion and scoring.

Below are some specific practices – both course-embedded and otherwise – taking place on the campuses visited and mentioned during the interviews. They have been organized by the levels at which they can be used to gather evidence of student learning.

Potential for evidence or data at the course level

- Formative assessment like “classroom assessment techniques” or teaching/coaching in the arts
- “Just in time assessment” such as student responses to readings collected through course software like Moodle or Blackboard
- More frequent assessments (tests, quizzes, graded assignments) none of which account for more than 15% of a grade
- Student self- and peer-assessments
- Use of the “writing process” (drafting and revision through one or more cycles), sometimes required to receive “writing intensive” course designation
- Common writing rubric for First Year Seminar and English courses
- Case studies

Sometimes, without knowing the term, faculty are using “classroom assessment techniques” such as the “one minute paper,” “least clear points,” and others, made popular by Angelo and Cross. (Thomas A. Angelo and K. Patricia Cross. 1993.

Classroom Assessment Techniques, A Handbook for College Teachers, 2nd Ed., Jossey-Bass.) Web-based course management systems are functioning as a technological lever to simplify both student and faculty use of these techniques. Students sign on to a campus network to respond as requested and faculty check the student responses prior to their next class to see whether any adjustments to their plans are needed based upon targeted student feedback. Several faculty reported using one or another CAT for nearly every class, providing very timely information on student understanding of readings, class experiences, and assignments.

(The Angelo and Cross classroom assessment techniques are widely available in their publications or they can be found by searching for “classroom assessment techniques” on the internet. Examples of course management software include Blackboard and Moodle. Interviewees specifically mentioned Moodle as being particularly well-suited for their purposes and, in addition, it is free. See: www.Moodle.org.)

Potential for evidence or data at the program level

- “Problem-based learning” used for some biology sections (as an alternative to lecture)
- Senior project (in biology), theses in philosophy, etc., with formative assessment cycles, public presentation, and defense
- First year and senior year writing samples to assess growth over time
- Inclusion of both writing intensive and writing in the discipline courses to develop multiple-style writing capabilities
- Faculty lunch seminars in which “Moodle” data are shared and course revisions discussed and made
- “Touchstone” assessments that check on student progress (for example, in specific, prerequisite knowledge and skills) as they advance toward senior capstone work
- Student portfolios, whether for a professional program or as a record of a student’s work throughout college
- Senior seminar in general education (in which one college’s students write a “life view” paper)
- Employer feedback
- As a group, department faculty assess “problematic” student papers to come to consensus on quality (improving among-faculty reliability and avoiding the need for a department-wide rubric)
- Lower division students interviewing upper division students just returning from study abroad creating reflection for the older students, a pre-view of the experience for the younger students, and very rich, qualitative program data.

Potential for evidence or data at the institutional level

- Senior projects or senior comprehensive exams (some of which are read by community partners on one campus)
- National Survey of Student Engagement data both in general and (on one campus) down to the individual question level

- Transcript analysis of course-taking patterns associated with high Collegiate Learning Assessment scores
- Aggregated and/or sampled data from selected lower level assessments
- Collegiate Learning Assessment results

Senior assignments were cited repeatedly as useful in guiding improvements in major course sequences and in initiating program change. There were multiple comments that senior final projects – capstones, theses, and poster presentations – gave programs a good sense of students’ capabilities. On at least two campuses, analysis of senior projects revealed gaps in student achievement that triggered realignment of department curricula. However, not all campuses using senior assignments, projects, or theses systematically review the results for the purposes of program- or institution-level assessment. While portfolios of various kinds are being used for assessment at all levels, they are primarily used for writing assessment and in professional programs on the campuses visited.

Part II: Initiating and Building Support for Faculty-Driven Assessment

The interviews were filled with ideas for how campuses could improve the climate for work on assessment of student learning. Certain faculty and administrators, while comfortable with the idea of assessment of student learning outcomes, are concerned that their campuses have not yet developed the necessary resources and processes necessary to support broad faculty involvement. On some campuses, these faculty have concluded that it would be a mistake to get involved in assessment of student learning outcomes before some of these fundamental issues are recognized and resolved.

There are a very wide range of suggestions for what must be in place on campus before beginning to assess student learning outcomes. While none are absolute “prerequisites” for developing faculty-driven assessment, several have the potential to severely limit progress if neglected. Most of the sections below offer campus solutions. Specific concerns are also included where appropriate.

A. Getting started

In our interviews, we found much good advice about how to get started. Some campuses appear to be starting the assessment process by asking what student data they have ready at hand or can easily get, an approach that rarely yields results useful towards improving student learning. Instead, a better approach is for the campus to begin by identifying important questions about student learning that deserve to be answered, and then seeking the best data by which to answer these questions.

- A faculty member: "It helped us to get started by focusing on discrete problems that were manageable within a year, topics that arose naturally out of the committee's work, not ones imposed from the outside, for example, by a dean."
- Faculty: "It's important to start with a valid question, not with a motivation to collect and crunch data."

- A dean on how to get the assessment process started: "Ask people questions that have some meaning for them. People want to learn something that will help them do something better."

Sometimes the institutional research office can help to initiate and then support a campus conversation about student learning outcomes. One institutional research person commented, "The questions *should* come from the faculty. But sometimes you have to generate data and hand it to the faculty. The faculty then come back and say, 'Can I get more data like this?'"

One way to start the assessment process is to begin with student learning goals and objectives and then ask which programs or courses or teaching methods are intended to facilitate the students' attainment of these. Do the teaching faculty know that their programs and courses are responsible for helping students to attain these learning objectives? For example, departments on several campuses have constructed matrices of expected knowledge and skills across courses in the program. The matrices show both redundancies—the same topics being taught in several courses—and gaps—important expectations not being taught in any courses. The departments subsequently revised curricula to close the gaps. One dean then asked the department chair to present this process as a model for other department chairs.

Another common "strategy," discovered in hindsight by several campuses, was to begin working on assessment with a group of "true believers." As they shared their experiences and results, other faculty became interested and created their own, new approaches.

Some administrators have clear ideas about what *doesn't* work well in appealing to the faculty. It is very important to remind the faculty that assessment is not about evaluation of the faculty. Assessment is a process of making programs, courses, and teaching more effective in bringing about student learning.

- An associate dean cautions: "Accreditation does not have a strong impact on individual faculty. The deans respond to calls for accountability, but the faculty do not."
- A dean: "Faculty respond better when they feel the stimulus, the initiative to do something, is internal, rather than external, imposed."

Some found a more effective approach is to recognize that faculty put extraordinary effort, energy, creativity, and time into teaching and helping students. Thus they have a self-interest in knowing whether their teaching makes a difference for student learning and how their teaching methods can be strengthened and improved.

- A dean: "The faculty are motivated to discuss common issues with their peers, especially if it has *immediate value* for them. This is better than to put them on an educational policy committee and discuss the issues abstractly—this turns it into an administrative issue. Meaningfulness is the key to getting people engaged. People have to be able to use the assessment answers quickly."
- An institutional research person: "Give the faculty something they can act on. First, generate interest by showing that there are data. Highlight institutional

strengths and weaknesses. Try to link the data to ongoing campus discussions. That will get the faculty to say, 'Oh, I didn't know that.' Second, because the disciplines are so different, leave developing an action plan to the department level."

- An associate dean: "How you treat people matters. Approach people with respect for their intellect and for their desire to be good teachers."

Several people who were interviewed emphasized the importance of distinguishing between the national conversation about assessment in higher education and the fact that in practice assessment will be carried out locally on each campus. Thus it can be important to build connections between the assessment of student learning outcomes and the faculty's pride in its own campus's history, traditions, and culture.

- An associate dean: "We're going to figure out our campus's way of doing this."
- A faculty member: "There's a general feeling that our campus does everything in its own way, so anything we do has to be unique to our campus. We don't want to be told by outsiders what to do."
- A faculty member, speaking about assessment: "It's a good argument to say, 'It's coming, so let's do it on our own terms, not someone else's.'"
- A faculty member: "A message that came through in our campus assessment workshops was that we need to work on this from our own perspective so someone else doesn't impose something we don't want."
- A dean: "Yes, there is potential leverage that the college administration has, either we do it the way our campus wants or we have it imposed."

B. Culture of evidence

Some faculty and administrators recognize that it will be easier to convince faculty that the results of the assessment process will in fact be used to strengthen academic programs if the campus already has a history of making good use of evidence in decision-making about how resources are deployed on campus. Faculty on one campus specifically commented upon a "bottleneck" in an institutional research office that delayed NSSE and other data from reaching faculty members, most of whom were deeply interested. Faculty on several campuses reinforced the notion that sharing data was a great way to interest nearly all faculty in assessment.

- A dean: "Our campus should be able to move forward with assessment, because decision-making on our campus is already driven by empirical data; we have a president who is very oriented towards data and accountability; and we have a well-staffed institutional research office that does mostly curricular studies rather than financial studies."
- A dean on another campus, "Our president believes in 'a culture of evidence.'"

Sharing data and improving academic programs based on examination of evidence can jumpstart more comprehensive efforts to assess student learning outcomes.

C. Student learning goals and objectives

Many campuses know that a major impediment to assessment of student learning outcomes is failure to agree on (or even work on) their course, program, and institutional

goals and objectives. A clear statement of learning objectives sets forth the knowledge, skills, and attitudes that students are expected to acquire. As such, it specifies potential areas for assessment. A campus with a shared vision and expectations for the knowledge, skills, and attitudes of its graduates has a better chance of planning for assessment of student learning in such a way that the data gathered will contribute powerfully to improvement of academic programs. Several campuses visited are engaged in writing or re-writing student learning objectives as they work to expand their assessment program and use of data to improve.

Faculty concerns on goals and objectives

- A senior faculty member: "Clarity about our goals for student learning has to come first. But our campus would find it difficult, if not impossible, to construct a list of what our graduates should know. We can't define a core in *any* of our disciplines."
- An institutional research person: "A problem on our campus is that the mission statement is vague and rambling, and there isn't clear campus agreement on what the goals are for student learning. Currently we have a really weak general education requirement. So on our campus the issue isn't what or how to measure. The challenge is to get the faculty to agree on goals for student learning."
- A senior faculty member: "On our campus, the faculty can't even agree on whether the first-year seminars should be writing intensive, so we couldn't even assess writing."
- An institutional research person: "The faculty don't want to listen to me—as someone who doesn't teach—talk about teaching or learning or assessing learning or even thinking about goals for learning. But that has to be the first part of the assessment discussion. The faculty come to me when they want surveys and data. But they haven't had the discussion about what are the learning goals. And the dean hasn't pushed that discussion."

Campus solutions

Campuses visited that were working toward agreement on the goals for student learning often had faculty working together as departments (for major area or programmatic goals) or on committees (for general education goals). These conversations among the faculty tend to shift the focus on learning from "my course" to "our campus." Plans for moving forward include building faculty support for the set of goals for student learning, and analyzing the curricula of each program to reveal where in the curriculum goals are fostered and which goals may have been slighted. Some campuses have found evidence of *de facto* expectations and actual impact of the curriculum by looking closely at senior projects in a major or in general education. The practice of "beginning with the end" is a very common approach to planning instruction and can be used whether working on an assignment or at the course, program, or institutional levels.

Related comments:

- A dean: "Our next step is to start with the goals for student learning in our campus's mission statement and ask whether department majors and course syllabuses are addressing these goals."

- A dean: “The start is to articulate what we want to reach for our students. The strategy is to work hard on this front part.”
- A dean: “In the 21st century, we ought to be able to articulate why a liberal education is relevant and valuable and good.”
- An institutional research person: "It's difficult to get faculty to discuss and agree about goals for student learning. Transcript analysis can be a way, for example, to show the sequence of courses that students take. This gives faculty a way of thinking about how the curriculum is being experienced by the students outside of their own course."
- A senior faculty member: “Assessment gets started more readily in departments where there is a concrete sense that external expectations for that major are clearly articulated, for example, by employers and graduate programs.”
- A dean: “I don’t use the A-word. My approach is to say, your students might have a better sense of what you’re doing for them if you make your learning goals more explicit. I know you are delivering a good product. You need to help your students to understand this.”

D. Emphasis upon learning

The campuses visited consistently emphasized their strong commitment to student learning and faculty engagement with students. Most campuses did appear to be engaged in reflective conversations about student learning. Much of the work on learning goals and objectives we heard about is evidence of a focus on learning. Many individuals with whom we spoke are raising questions about or suggesting how to improve student learning.

- A dean: "It says in our planning documents that student learning is the highest priority. When we raised the question, 'Could our institution be better?,' this turned the focus from the faculty to the students' experience. And this led to conversations about what inhibits student learning, are the faculty up-to-date, are the faculty challenging themselves, are the faculty setting high enough standards for the students?"
- An institutional research person: “It would be really big on our campus to even look at course syllabuses.”
- A dean: “Assessment is a word with a lot of baggage. It’s not helpful to use. Instead, on our campus we’re building a ‘culture of inquiry,’ which is how we as educators think about our work and our values. For example, I have the institutional research person attend faculty discussions so that the faculty can see that if they will raise the questions then there can be data made available for them.”

E. Support for improvement of teaching

With a long-established link between good teaching and student achievement, it is not surprising that an interest in improvement of teaching goes along with an interest in student learning. We explored the level of campus support for faculty working on improving their teaching (which includes learning about assessment). Many campuses have dynamic teaching and learning centers that both faculty and students use to their benefit. New faculty orientation can be helpful, especially for those with limited previous

teaching experience. But it can be difficult for faculty, particularly young faculty, to work on the assessment of student learning outcomes if the campus rewards structure does not recognize the “scholarship of teaching and learning.”

As has been mentioned previously, administrators must also ensure that the *assessment* of student learning be walled off from *faculty evaluation* processes. A tenured faculty member: “There is a concern that assessment results could be used in negative ways, for example, in tenure and promotion reviews and in merit raises.” The same separation is needed for any mentoring or coaching in pedagogy that a faculty member receives.

A main purpose of assessment is to strengthen student learning and improve academic programs. Yet this will be difficult to do if there is not a campus culture in which faculty are encouraged to talk about teaching as well as support and resources on campus for faculty who are striving to become better teachers.

E1. Faculty development and teaching and learning centers

All campuses were active in faculty development. Topics and number of faculty included in these efforts, of course, varied. Some highlights from the interviews:

- Faculty curriculum development grants with a requirement to attend a teaching workshop and participate in reading student writing portfolios
- Grant-funded pairs of faculty from within departments attend summer workshops on course development and then serve as faculty presenters for an annual faculty development day for all faculty
- All-faculty seminars held to talk about pedagogy – recently emphasizing use of technology
- Peer-mentoring seminars held over meals
- Faculty development seminars for young faculty that *exclude* senior faculty, helping to ensure that questions or problems discussed will not be linked to future tenure decisions
- Common campus-wide readings in liberal education that are then discussed
- Campus-created podcasts on pedagogy and technology

Paying faculty for attending certain events was mentioned as an effective strategy. While the actual stipends were not large, the message conveyed – that both faculty time and the event were valued – was powerful.

E2. Leadership support from multiple levels for improving teaching

Faculty feel well-supported when their president and other administrators talk about and support efforts to look closely at teaching and learning on campus. One president reportedly delivers the message, “we care about teaching, we care about scholarship, broadly defined.” Another president is specifically supporting a focus on learning and assessment, in part by having the campus adopt the “Boyer model” for scholarship (i.e., the scholarship of teaching and learning).

Support for frequent faculty discussions of teaching and learning (Friday seminars, teaching interest groups, buying books to discuss, discussions over dinners, and invited

speakers) can also come from deans and other administrators. While the message of administrative support should be clear, that oft-mentioned wall of separation between teaching improvement and teacher evaluation must be maintained.

Finally, the hiring process can build support for teaching and learning. One campus hired a person specifically to work with faculty on development of assessments. Another gives increased consideration to candidates who have teaching portfolios (in addition to excellent traditional credentials) and can talk about their philosophy of education.

E3. Promotion and tenure issues

There were concerns about how faculty commitment to the improvement of teaching might be treated during promotion or tenure review. Among the faculty, there are mixed attitudes about the legitimacy or rigor of the scholarship of teaching and learning. One young faculty member flatly stated: “To remain marketable as a faculty member, you still need to have a traditional focus in your scholarship.” One well-respected faculty member had to argue strongly for promotion based upon a portfolio of extensive work in the scholarship of teaching and learning that directly benefited many of the campus’s students.

When asked about the balance among teaching, research, and service, administrators always indicated that the campus’s central commitment was to teaching. There seemed to be some flexibility in the kind of research expected: research on teaching was often deemed “okay,” provided the results were disseminated and brought to wider attention. Some preferred the work to be peer reviewed. Several campuses commented on a change in the expectations for research when a new president is hired. Such a change can be a real challenge for faculty close to an application for promotion or tenure.

Administrators sometimes shared well-practiced phrases for what they were looking for in faculty work:

- “Teach well, develop a good body of research, be a good citizen in your department.”
- One provost asked faculty to “make their own case” for promotion or tenure through an “active demonstration of one’s own disciplinary projects.” The expectation was for “no goose eggs” in any of the three traditional categories.

Campuses seem to be moving carefully to give credit for faculty work in the scholarship of teaching and learning in promotion and tenure processes.

F. Faculty governance

We heard conflicting advice from campus to campus about how to organize the faculty to begin the work of assessment. Who should be the members of a faculty assessment committee? Should this be, following faculty governance procedures, an elected committee? Or a committee appointed by a dean? What should be the powers of the assessment committee?

- A faculty member: "Discussions about assessment should be transparent, in open meetings, not a secret process by a secret committee."
- But a dean on another campus said: "I focused on faculty who I knew would be open to discussing assessment. I didn't keep this a secret—it's on the dean's web site—but I kept this quiet. I wanted the group to develop its own momentum."
- An associate dean emphasized "the importance of faculty governance—do things in the organic way that things work on campus."
- A senior faculty member: "The administration appointed an assessment committee a few years ago. All the proposals were shot-down. Later, the faculty appointed a committee. Proposals that were similar all passed."
- A faculty member: "It helped to get past faculty resistance on our campus to begin by electing faculty who were trusted to serve on an assessment committee with a changing membership. So the committee was not threatening and faculty autonomy was preserved."
- A faculty member: "Assessment is working on our campus because the people involved are not proselytizers. They are self-critical."
- A faculty member: "We kept the committee spare, leaving it to the committee to bring in resource people when they were needed."
- An institutional research person: "The librarians have been more interested in assessment than our faculty. They've been more conscious about their practice, asking does our teaching make a difference and developing questions for students."

Part III. The Student Perspective

While not a representative sample, the students interviewed during campus visits were animated in their responses to questions about teaching and learning, assessment, and the Collegiate Learning Assessment. The students spoke without hesitation and often nodded in agreement as other students spoke.

About teaching and learning:

Students enjoy "making connections" among things learned in different classes and are aware of making more connections all of the time. Critical thinking seems to be emphasized on several campuses, with students reporting significant changes in the way they think and argue about issues. Classes and experiences in the arts, humanities, sciences, and the co-curriculum were all mentioned as important for advancing critical thinking. Rather unique was one student's speculation that the college "seems to be trying, in many ways, to back up what they claim in their brochures."

Students reported that professors are very supportive and are "pulling for them" to succeed. Email from students is encouraged and professors are very willing to help students through learning difficulties. Professors who show passion for their disciplines help to create student interest in classes and subjects. Students like professors who are "open," honest in their critiques of student work, willing to help, and engaged. Students

recognize that it is good for them when professors demand quality work and help students focus their efforts.

In several cases, students reported being taught distinct approaches to writing for general purposes and writing in the disciplines – approaches that those students now used intentionally according to context. A special spring term on one campus that allows for a single subject to be studied intensively over a short period of time is highly valued. Finally, a unique general education program on one campus that, in effect, creates a four-year learning community for a modest number of students received high praise for the way in which students' common experiences generate frequent and interesting out-of-class discussions.

About assessment:

After defining “formative assessment” and asking students whether it was part of their experience, one interviewer found that students could cite many examples of formative assessment that they found helpful. From writing center experiences to courses in computer science, laboratory sciences, and the arts, formative assessment was cited as contributing to improved student learning. Reactions to self- and peer-assessment, as part of formative practice, were mixed with peer-assessment being viewed as not useful when the peer was not skilled. Being taught to self-assess and well-informed peer-assessment were both supported.

On one campus, students reported that the use of rubrics for assessment seemed to make an assignment too “grade-driven,” de-emphasizing learning and focusing on “getting a grade.” On other campuses, however, having a rubric to guide work was seen as quite helpful.

Students noted that support for revision of writing assignments is provided more commonly at the beginning of semesters, when things are easier and everyone seems to have more time, and then withdrawn as the writing assignments become harder and the stakes are higher. They found it ironic that help was less available when they needed it most.

Part IV. Impressions of the Collegiate Learning Assessment

The Collegiate Learning Assessment (CLA) is a fairly new, standardized, qualitative assessment of critical thinking, analytical reasoning, and written communication that can estimate the institutional value-added by comparing scores from samples of first-year and senior students. Because the CLA can provide data on three central liberal education outcomes, it has received much attention from campuses, a national commission, and from the Teagle Foundation, which is a major CLA project funder. On campuses where the CLA is being used, faculty and students were asked about their experiences with the test.

Faculty and administrator impressions

Faculty who actually had a chance to complete parts of the CLA test were generally impressed with the testing process. They commented that “the test is pointed in the right direction” and “the problems seem like something that students really should be able to do.” The experience also led some to reflect upon the extent to which students are asked to complete similar analytical and problem-solving assignments in classes. One faculty member hoped to see CLA develop many additional questions for varied discipline-specific contexts.

One administrator expressed the belief that “doing as well as predicted” on the CLA as an institution should be the “bar” for acceptable campus performance. The administrator worried that an expectation to *exceed* predicted gain might develop, an implication felt from time-to-time while working with CLA personnel. Another administrator, knowing that ACT scores are actually poor predictors for that campus’s students, wondered how that circumstance might skew judgments of their meeting or exceeding expected institutional value-added.

Several interviewees expressed interest in finding out more about CLA studies of value added in other populations like the military. There were multiple comments on how hard it was to recruit students to take the test. The expense of CLA testing was also a worry.

Student impressions

Students were prepared for the CLA testing in different ways on different campuses but most students were surprised by the kinds of questions asked. A common worry for students was whether they were answering the questions in the way in which the test makers “wanted.” Interestingly, one student commented that having students take the CLA showed that the institution cared about students. Many students experienced significant test fatigue during the second or third hour of the test administration.

Students were mixed in their responses about whether they had experienced problems similar to CLA problems in their classes. Two students commented that the CLA problems reminded them of “case studies” on which they had worked. One group of students agreed that the CLA problems were not “dry” and several indicated that the problems were “somewhat motivating.”

Part V. To Conclude

The interviews unearthed a variety of opinions and practices familiar to discussions on assessment. The chief impression left with the interviewers was one of campuses with assessment programs as “works in progress” – a few advanced, the majority at earlier stages. Practices on several campuses could be (and have been) cited in publications as exemplary – worthy of discussion and emulation.

A top irritation for faculty is working hard to supply assessment data as an end in itself – the data disappear into a “black hole” of compliance and do not result in needed changes

or new resources. We found that when faculty and administrators together are involved in the assessment process, they are more willing to consider and discuss assessment results and to use these data as a basis for improving their academic programs, courses, and teaching. Some of the assessment activity we heard about on the campuses visited is, indeed, being used to improve learning and programs. These campuses are “closing the loop” with their assessment data.

Resistance to collecting data on student learning, beyond grades and for assessment purposes above the individual student level, remains very strong for some individuals and departments. There was evidence of resistance on all campuses visited.

Given the need for national leadership for liberal education from the sector most closely identified with it – liberal arts colleges – the authors hope that the information contained in this report, gathered from peer institutions, may help to advance assessment practices and build strong cultures for learning and assessment on all of the Teagle project campuses.

We know that challenges remain in assessing liberal education outcomes in ways worthy of our expectations and vision. Resistance to assessment is due, in part, to shortcomings in creating manageable, valid and authentic assessments. Yet “best practices” are currently emerging. As faculty and administrators work creatively to develop ever better approaches to assessment, higher education will increasingly have the data needed to strengthen teaching and document the nature of liberal learning convincingly. The future of liberal education as the education *all* students need and deserve in the 21st century depends upon our creativity – and our commitment.

Appendix: AAC&U Resources on Assessment

Free resources

Our Students' Best Work

AAC&U Board of Directors Statement

Designed to help campuses respond to demands for greater accountability, this statement calls for assessments that measure higher-order learning aims such as critical thinking, integration of knowledge and ideas, and application of knowledge to real-world problems in different disciplinary domains. It sketches five key educational outcomes, offers a set of principles for higher education accountability, and suggests a set of accountability questions every college or university should ask. Ideal for dialogues on assessment of student learning with campus leaders, trustees, or public officials.

Free pdf download:

<http://www.aacu.org/publications/pdfs/StudentsBestReport.pdf>

Liberal Education Outcomes: A Preliminary Report on Student Achievement in College

Carol Schneider and Ross Miller

This report is designed to provide an overview of national data on the importance of liberal education outcomes and how well college students are achieving these outcomes. It is designed to generate dialogue and spur implementation of more systematic ways to measure student learning outcomes across the curriculum and at incoming, milestone, and capstone levels.

Free pdf download: http://www.aacu.org/advocacy/pdfs/LEAP_Report_FINAL.pdf

**AAC&U publications on liberal education and assessment
(may be ordered on the AAC&U Web site
www.aacu.org/publications/index.cfm)**

Advancing Liberal Education: Assessment Practices on Campus

Michael Ferguson

This publication presents the stories of six different colleges and universities that have developed innovative programs to advance and assess key liberal education outcomes. Originally written for *AAC&U News*, these stories--which focus on writing, information literacy, understanding of diversity, critical thinking, quantitative reasoning, and civic engagement--offer models for effective assessment practices. Also included is information about finding additional assessment resources.

The Art and Science of Assessing General Education Outcomes: A Practical Guide

Andrea Leskes and Barbara Wright

This guide offers practical recommendations for individuals involved with the assessment of general education programs and outcomes on campus. It includes a step-by-step assessment checklist, tips for better assessment, and examples of assessment tools,

methods, and rubrics for assessing a variety of key outcomes of a quality general education.

Assessing Campus Diversity Initiatives: A Guide for Campus Practitioners

Mildred Garcia, Cynthia Hudgins, Caryn McTighe Musil, Michael T. Nettles, William E. Sedlacek, and Daryl G. Smith

Provides tips and tools for designing and developing effective diversity evaluations. Topics addressed include the need for assessment, designing an evaluation plan, institutional context, audience, data collection and analysis, performance indicators, and theoretical models. An appendix also includes sample assessment and evaluation tools from campuses across the country.

Assessing Global Learning: Matching Good Intentions with Good Practice

Caryn McTighe Musil

Assessing Global Learning is designed to help colleges and universities construct and assess the impact of multiple, well-defined, developmental pathways through which students can acquire global learning. Specific program examples demonstrate how and where curricular and co-curricular learning can be embedded at various levels from individual courses to institutional mission. The publication argues for establishing clear global learning goals that inform departments, divisions, and campus life and suggests assessment frameworks. Includes a sample quantitative assessment survey and several assessment templates.

General Education and the Assessment Reform Agenda

Peter Ewell

Written by national expert on assessment Peter Ewell, this paper reflects on the challenges of general education and assessment reform in the context of recent calls for accountability in higher education. The author argues that by focusing on abilities, alignment, assessment, and action, campuses can both improve general education programs and demonstrate student achievement of learning outcomes key to success in the 21st century. This book is ideal for general education or curricular reform committees and campus discussions about assessment, general education, and accountability.

General Education: A Self-Study Guide for Review and Assessment

Andrea Leskes and Ross Miller

This practical guide is designed for campuses undertaking a review of their general education programs. Organized as a series of probing questions, it can help the faculty and academic administration plan a self-study. While not providing answers to the questions posed or recommending particular approaches, the guide presents steps of a process that can be used either for program review of an existing program or for general education redesign.

Levels of Assessment: From the Student to the Institution

Ross Miller and Andrea Leskes

This paper describes five levels of complexity in assessment at the college level, from assessing individual student learning up to assessing the institution. It clarifies the all-too-common "assessment morass" and provides guidance on appropriate actions and uses of different assessment methods. The premise of the paper is that direct measures of student learning can be used for multiple levels of assessment and that the ways of sampling, aggregating, and grouping data depend on the original questions posed.

Purposeful Pathways: Helping Students Achieve Key Learning Outcomes

Andrea Leskes and Ross Miller

This final publication of the Greater Expectations project reports on practices from high school through college to advance four selected liberal education outcomes: inquiry, civic, global, and integrative learning. From defining outcomes, to reviewing current practices, to charting sequences of learning over time, readers will find numerous resources helpful in their curricular planning.

Service Learning and Learning Communities: Tools for Integration and Assessment

Karen Kashmanian Oates and Lynn Hertrick Leavitt

This book offers ideas and practices based on the authors' multi-year experience of integrating service-learning into learning communities. Includes a rationale for these forms of learning, resources and practical information to begin and sustain programs, guidelines for different stages of development, and recommendations about assessing student achievement in these programs.

Shared Futures: Global Learning and Liberal Education

Kevin Hovland

This publication by Kevin Hovland examines the evolving definitions of global learning in the context of previous reform efforts in the areas of diversity, democracy, and civic engagement. It also illuminates how global learning converges with the most powerful current models of liberal education.

Taking Responsibility for the Quality of the Baccalaureate Degree

A report from the Greater Expectations Project on Accreditation and Assessment

This monograph describes the emerging consensus among accreditors and other educational leaders about liberal learning outcomes essential for all baccalaureate graduates. Authors discuss the necessary connections between general education and the major in achieving these key outcomes, while offering examples of their assessment in a variety of institutional settings. Implications for action are included.

Value Added Assessment of Liberal Education, Peer Review Double Issue

Winter/Spring 2002 (double issue)

Presents the RAND Corporation/Council for Aid to Education' Collegiate Learning Assessment (CLA), a long-term project to assess the quality of undergraduate liberal education in America at the institutional level. Also included are several initial responses to the initiative.