

National Institute for Learning Outcomes Assessment

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Carnegie Mellon University: Fostering Assessment for Improvement and Teaching Excellence

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Carnegie Mellon University (CMU) is a private research university with seven schools and colleges and with more than 11,000 undergraduate and graduate students and 4,000 faculty and staff. Located in Pittsburgh, CMU was founded in 1900 by industrialist/philanthropist Andrew Carnegie as a technology and arts school for the children of the city's working class. CMU has evolved into an institution renowned for its programs in computer science, engineering, arts, and business and policy, and it is consistently ranked among the leading research universities in the world. The university is also recognized for its commitment to collaboration across disciplines and for its innovative leadership in education. Research with a problem-solving impact is the cornerstone of CMU's institutional identity.

Carnegie Mellon was selected as a case study for the National Institute for Learning Outcomes Assessment (NILOA) for having an approach to student learning outcomes assessment that reflects the institution's commitment to interdisciplinarity and innovative teaching and learning. Three elements have been instrumental in CMU's advances in program-level student learning outcomes assessment: 1) an institutionalized research-oriented and data-informed university decision-making process driven by deans and departments; 2) an organizational culture with established processes promoting continuous improvement; and 3) the elevation of a cross-campus faculty resource—the Eberly Center for Teaching Excellence—as the hub of assessment support. This case study broadly describes CMU's approach to addressing the challenges of assessment, explores the salient elements of CMU's culture for assessment and improvement, and then focuses on the positioning and role of the Eberly Center for Teaching Excellence in student learning outcomes assessment at CMU.¹

Respecting Institutional and Program Culture in Approaches to Assessment

Carnegie Mellon University is distinct in its interdisciplinary approach to research and education, with multiple interconnections across departments. Through the establishment of programs and centers housed outside departments or colleges, the university is a leader in fields such as computational finance, arts management, product design, behavioral economics, human-computer interaction, entertainment technology, and decision sciences. Strong partnerships with industry support selected programs, and a streamlined approach to technology transfer has encouraged faculty to start companies or license their innovations. CMU is a research-intensive institution; in fact, research grants have accounted for more of the university's operating revenues than has tuition (CMU, 2008). This extensive research activity provides a rich setting for CMU's educational offerings and aspirations and also demonstrates its strong interdisciplinary and faculty-driven culture.

¹ This case study is based on interviews with the Vice Provost for Education, the Associate Provost for Education and Director of the Eberly Center for Teaching Excellence, the Campus Affairs Operations Administrator and Accreditation Liaison Officer, and department heads and faculty members, as well as a systematic review of the institutional Web site and an analysis of relevant documents. Interviews took place from April through August 2011.

CMU's strong research culture has motivated the institutionalization of data-informed decision-making processes at the university. Routine feedback mechanisms—such as financial reviews, surveys, and regular meetings—provide the trustees, president, and provost, along with the senior leadership of deans and vice presidents, with a wide range of data to inform the allocation of resources or the setting of new policies.

In interviews, the Associate Provost for Education and several department heads and faculty described CMU as nimble and creative, and the Associate Provost explained that initiatives are “largely driven from the bottom-up, not the top-down.” There is a willingness to reinvent the institution that engenders innovation, explained a faculty member in engineering. These characteristics have influenced CMU's approach to assessment and institutional improvement. For example, the institutional characteristic of strategic-reflection is perhaps best illustrated in CMU's well-established President's Advisory Board (PAB) process, which engages all academic and many administrative units in a self-study and external review every four to five years. The PABs ask units to study and report on nine critical areas, reflective of the university's strategic plan, including its progress since the prior review. The focus of the PABs is primarily the assessment of academic quality and effectiveness.

CMU considers itself a pioneer in the use of innovative and authentic ways to assess student learning and performance. For example, many programs at the institution require students to engage with real-world projects and clients, and faculty in various departments use methods customized to their discipline and their local culture (e.g., capstone courses in engineering, performances in drama). The prominence of applied projects in courses and programs has fostered their use as artifacts for assessing student learning.

Although a strong culture of innovation and improvement and an emphasis on authentic assessment has been part of the CMU culture for many years, the formal emergence of the assessment movement suggested the need for a more systematic approach. In addition, increased demands for evidence of educational effectiveness and, specifically, documentation of student learning outcomes in regional accreditation, prompted CMU to develop more systematic documentation of assessment efforts.

In the process of preparing for their 2008 Middle States Commission on Higher Education (MSCHE) reaccreditation, it became clear that CMU was not adequately documenting the full range of its assessment activity. For example, a department head reported that significant changes in the curriculum were motivated by prospective employers' assessments of students' skills at an annual job fair. The department head indicated that employers reported students' strengths and weaknesses and areas for improvement. Faculty then reviewed this and other feedback, leading to several changes in the curriculum and to more precise specification of learning goals and competencies in the program. Yet, according to the Associate Provost, “None of this good assessment evidence, albeit indirect, had been documented.” As a result, a major initiative for accreditation preparation was to develop a common understanding of assessment and a systematic method to document its occurrence. The Associate Provost was also supportive of increased attention to student learning outcomes assessment and the educational advantages of a more systematic and consistent approach to assessment.

CMU has undertaken the assessment of student learning outcomes at a variety of levels including college, department, and major field of study. According to the Associate Provost, it was important to honor CMU's strong decentralized approach: “Student learning outcomes assessment efforts had to start with the deans. This is how things get done here...every college and department will have a specific approach.” CMU's Web site statement on assessment further articulates the strong faculty orientation to assessment:

For assessment to be meaningful (not bean-counting or teaching to the test!) it must be done thoughtfully and systematically.... It should be driven by faculty so that the information gathered reflects the goals and values of particular disciplines, helps instructors refine their teaching practices and grow as educators, and helps departments and programs refine their curriculum to prepare students for an evolving workplace. (<http://www.cmu.edu/teaching/assessment/>)

CMU's strong disciplinary and departmental culture led naturally to assessment processes rooted in colleges and programs. At CMU, individual instructors, departments, and colleges are best suited to determine how to assess student learning outcomes and programs. Faculty of each college and department were encouraged to review current outcomes assessment practices and to revise or develop processes, methods, and measures that would best address the specific needs and priorities of them and their students and that would make best use of their available resources. Departments have specified learning goals aligned with the learning goals of the university, and all departments have core courses designed to provide learning experiences students need to acquire the knowledge, skills, and competencies required of their major. As might be expected with such a decentralized process, different programs are at different stages of collecting evidence and measuring outcomes. In addition, every department defined and organized the work differently. For example, some department heads are leading the learning outcomes assessment initiative, others identified a senior faculty member to lead, and others have charged their curriculum committee with outcomes assessment leadership. Some units' assessment activities were accelerated by their disciplinary accrediting activities (including those for ABET, accreditor of applied science, computing, engineering, and engineering technology, and for the National Architectural Accrediting Board, NAAB), while others started with a clean slate, never having formally documented their assessment processes. Departments in one college developed outcomes at the college level and, after doing so, began work on program-level outcomes, while other units started with program-level outcomes.

In addition, substantial advances in the assessment of student learning outcomes at CMU came about during the 2008 self-study for reaccreditation and the revision of the university's strategic plan, also completed that year. The 1998 strategic plan provided the framework for the university's future direction and resource allocation and outlined an institutional assessment plan. Interestingly, the process of updating the strategic plan occurred at about the same time as MSCHE self-study preparations, which provided the opportunity to take advantage of the data-gathering, committee discussions, and external review undertaken as part of the self-study process.

Emphasizing Assessment as Improvement

The self-reflective culture at CMU is the foundation for its commitment to assessment for continuous improvement. CMU's *2008 Self-Study Report* asserted that "ongoing feedback—even outright criticism—is crucial for an institution less interested in celebrating its past than investing in its future" (p. 45). In 2009, CMU began a university-wide initiative to have each degree-granting program systematically document its outcomes and assessment processes. This effort is tied to program assessment, or what CMU calls, the Curriculum Review and Revision process. This process is designed to serve as the systematic collection, review, and use of information for the purpose of continually improving student learning and overall program effectiveness. The provost has been clear that assessment is not simply about satisfying regional accreditation standards but rather is about improvement, and his leadership has been crucial in supporting successful university-wide assessment initiatives. The associate provost confirmed that most departments and programs embrace the improvement aspect of assessment.

At the heart of the institution's approach to institutional assessment and improvement are the President's Advisory Boards (PABs). Since 1990, colleges, departments, and schools, as well as some nonacademic units, have had PABs composed of professionals in the discipline as well as CMU trustees and alumni. PABs are charged with visiting their respective departments every four to five years to assess strengths and weaknesses, to examine educational quality, to evaluate needs for the future, and to make recommendations to the university president. PABs consist of up to eight external members as well as two members of the university's board of trustees, one of whom chairs the advisory board with an external academic co-chair. PAB members are individuals of accomplishment and distinction who bring their talents, experience, and wisdom to bear on the issues facing the unit and the university. PABs ensure periodic self-analysis; provide independent assessment of the department to the president and the board of trustees; serve as sources of

information and advice; help achieve a broader, even global, perspective on the unit's activities and goals; provide enhanced contacts to government, business, industry, and academia; and assist the board of trustees in responsible governance and deeper understanding of the university and its subunits. Most important is the follow-up and continuity required in this process. After the unit head has reviewed the PAB's written report, the president, provost, dean, and unit head meet to discuss the recommendations and the best way to respond to them. The unit head then sends a letter of response to the members of the PAB, outlining the actions decided upon. After the written report and response have been distributed, an oral report of the visit is presented by the provost at a meeting of the full board of trustees, and the implementation of the plans described in the response becomes a priority of faculty and administration (President's Advisory Boards, n.d.).

The PAB process is especially effective as an assessment mechanism for an institution as decentralized as CMU. First, the composition of the PAB provides the unit a trustworthy means to critically examine mission and goals. Second, the four- to five-year cycle provides reasonably frequent comprehensive review, while allowing sufficient time between visits to implement change and evaluate results. The process is a genuinely practical and cost-effective tool for assessing the unit's achievements and direction. In addition, through the PAB experience, trustees have the opportunity to learn in depth about a specific unit of the university.

By stimulating critical review and providing actionable insights and recommendations for improvement, PABs energize and support the institutional assessment and improvement cycle. Even more, CMU effectively leveraged the PAB process to strengthen assessment practices and to emphasize continuous improvement goals. In the past two years, CMU has more explicitly incorporated program outcomes and their assessment into the PABs. According to the Associate Provost, "Although the idea of assessment still has negative connotations for some faculty and staff, the advisory board process is a good example of the ongoing attention to improvement that all faculty and staff value and understand." The PABs serve as important mechanisms for enacting and furthering assessment and improvement initiatives.

The Importance of Taking Stock: Assessment Task Force

While assessment was occurring at the department and program levels and improvement processes were regularly enacted through the PAB process, the institution lacked a coordinated, university-wide approach to assessment. The institution's accreditation working group concluded that while the institution was highly data driven, it was not as systematic or transparent in the methods and processes it employed and it also lacked a shared language for discussing assessment activities at the college and institutional levels. To address this gap, the provost created the Assessment Task Force (ATF) in 2007, with the goal of having a completed work product in three years.

The broad goals of the ATF reflect CMU's research-driven culture. The task force was established to fully document CMU's assessment efforts in all their forms and also to point toward future evolution of institutional assessment. The ATF aimed to expand the conversation about assessment at CMU by making assessment more transparent and disseminating best practices across the university. It helped departments develop a more systematic approach to assessment in undergraduate education. ATF members, nominated by deans, performed as liaisons to colleges and departments and as "assessment ambassadors" across the institution. The ATF was co-led by the Associate Provost and a statistics professor who is also an expert in psychometrics. The ATF worked to help colleges develop useful assessment practices that were valid, cost-effective, systematic, and transparent; then it disseminated these practices to the university community. Even more, the ATF worked to honor disciplinary perspectives while addressing variability in how clearly institutional goals were articulated and how systematically and broadly departments used data on learning outcomes to inform curriculum change.

The ATF's three framing questions illustrate its broad approach to exploring the current state of assessment at CMU—while looking forward to expanding campus assessment practice:

- *What is the current state of assessment of learning outcomes across the entire campus, at the department/school level?*

- *What facilitates or hampers engaging in assessment activities at the department/school level?*
- *What is the future of assessment practice on campus?*

In addition, the purpose statement of the ATF articulates an approach to assessment demonstrating the alignment with curricular goals and the emphasis on actionable feedback:

We approach assessment from a data-centric rather than a tool-centric position; our choice of methods is guided by questions such as

What will this process tell me about my students' knowledge, skills, and growth?

What will I learn about the strengths and weaknesses of our program?

What information will this give me on how to improve my teaching or our program? (Assessment Task Force, 2008)

The ATF produced several reports addressing the three framing questions and made these reports publicly available (<http://www.cmu.edu/teaching/assessment/history/ATFdocs/atffinalreport.pdf>). The stock-taking activities of the ATF were important to documenting assessment in all its forms and to pointing the way toward future evolution of assessment over a three-year period. The task force met its charge, resulting in the creation of the assessment Web site and a recommended strategy for the development of a sustainable, deliberate culture of assessment.

The Office of the Provost initially provided a budget for the work of the ATF including a project manager (for three years). CMU created a Web site and staffed a program assessment coordinator position, but with the unexpected departure of the staff member converging with the global economic downturn, the position has not been renewed.

Anchoring Assessment in Teaching Excellence

The Eberly Center for Teaching Excellence (<http://www.cmu.edu/teaching/eberly/index.html>), founded in 1982 to assure that faculty had the support to create innovative courses and learning opportunities, has played an important role in advancing student learning outcomes assessment at CMU. The Associate Provost identified the quality of information exchanged through the Eberly Center and the trusted interaction between Eberly Center staff and faculty as critical to advancing assessment at the college, program, and course levels. The center effectively reinforces the link between outcomes assessment and improvements to student learning.

The center is aligned with CMU's research culture in that its role is to help translate research in the learning sciences into practice and to enact a data-driven approach to helping faculty improve the quality of teaching and learning. Efforts to create a research-oriented, data-driven center were intentional, and the Eberly Center strives to enact this model in all its work. Enhancing education by solving a teaching problem is a prominent theme in its approach to teaching excellence (<http://www.cmu.edu/teaching/solveproblem/index.html>). For example, a faculty member may visit the center regarding a concern about the high proportion of students who underperform on a critical exam. Center staff approach the issue as a research project: They begin by asking questions, they collect data by interviewing students and teaching assistants and carefully reviewing the exam, and then they formulate some hypotheses and work with the faculty member to develop a response. The center is widely used by both tenured and untenured faculty across all departments and units.

During the 2008 accreditation self-study process, CMU faculty expressed a deep interest in using assessment to monitor and improve their teaching and programs as well as a desire for support to do so efficiently and effectively. At the same time, the institution asserted the Eberly Center's role in supporting faculty and teaching assistants in reviewing and revising curricula and in assessing student learning. As a result, one of the key strategies to advance CMU's assessment efforts was to link assessment to the work on teaching effec-

tiveness emanating from the Eberly Center. By connecting assessment to the center, the director said, it was easier to assert the learning benefits of assessment and to make it “possible to implement an assessment plan that actually improves teaching and learning.” This connection broadened the base for assessment, making it about supporting, guiding, and evaluating student learning as well as for instructor and course improvement and program evaluation. The Eberly Center Web site (<http://www.cmu.edu/teaching/assessment/examples/programlevel-bycollege/index.html>) provides examples of the curricular review process and its impact on program effectiveness and improvement, including examples of alumni surveys, placement tests, rubrics, and consultation reports.

The Eberly Center’s role in assessment at CMU created an effective balance between CMU’s decentralized culture and the need to find common ground and shared vocabulary around assessment. The center staff work very closely with each dean and department head and faculty member leading a unit’s outcomes assessment process, respectful of each discipline’s particular needs and curricular constraints. At the same time, shared resources were created for use by the entire campus, and a range of assessment resources and tools were posted to the Eberly Center Web site (<http://www.cmu.edu/teaching/assessment/index.html>). Assessment resources there are included for the following topics:

- Assessment Basics
- Assessing Prior Knowledge
- Assessing Learning
- Assessing Teaching
- Assessing Programs
- Assessment Examples and Tools

The topic “Assessing Learning” illustrates an array of resources available for faculty, including a rationale for the importance of assessing learning through performance—or, more specifically, what students can do with their learning—along with suggestions and strategies for assessing student learning and performance as well as ways to clarify expectations and performance criteria to students. Subtopics in this section address the particulars of creating assignments with explicit learning outcomes and clear performance criteria, using classroom assessment techniques to quickly gauge students’ knowledge coming into a course and concept maps to gain insights into how students organize and represent knowledge.

A section of the Eberly Center Web site that is growing with the institution’s emphasis on documenting student learning outcomes assessment at the department, program, and course levels is the topic “Examples and Tools” (<http://www.cmu.edu/teaching/assessment/examples/index.html>). This section features successful examples of course- and program-level assessments contributed by faculty and programs across CMU. Dozens of assessment tools and course-level examples across five colleges illustrate innovative rubrics for assessing project work, worksheets to guide students’ analyses, surveys for assessing students’ confidence and goals for writing, peer evaluation tools for group projects, and rating scales for oral presentations, among others. Interesting course-level examples organized by type (assignments and exams, comprehension checks, group process assessments, performance criteria, pre/posttests, prior knowledge and reflective assessments) are also featured, and include examples from courses in strategic management, philosophy, design studio, and statistics. Each example is described using a common template including purpose, implementation, results, and faculty comments. Particularly instructive examples reveal instructor cautions and concerns, document what the faculty member changed in the course, and discuss the impact on students and their learning.

Assessment as a Tool for Continuous Improvement: Three Examples

Several examples of assessment activities at CMU illustrate the effective connections between the Eberly Center and faculty and program work on student learning outcomes assessment. These examples—from the arts, engineering, and the humanities—highlight just a few of the creative approaches to assessment reflecting CMU’s research-oriented culture.

Arts. A faculty member in the CMU College of Fine Arts explained that she got involved with the Eberly Center and outcomes assessment after participating in a center workshop on using assessment to improve student learning. During CMU's self-study for accreditation it became clear to her that traditional approaches to assessment were not well suited to arts education, yet she knew that it was possible to demonstrate student learning and the effective teaching going on at the college. Specifically, she concluded that assessment in courses too often focused on a review of the artifact, instead of the learning process—thus encouraging students to work on meeting the instructor's objectives rather than solving complex problems independently. To address this problem, she focused on improving assessment processes to align more directly with course and project objectives. For example, she developed extensive course "project briefs": concise guides specifying assignment objectives that describe specific behaviors and reflection tasks that students are asked to undertake. Project briefs are well suited to arts courses because they are process focused and are less prescriptive about outcomes than traditional rubrics. She reported that students appreciated the briefs and expressed greater understanding about the projects and what they were gaining from the assigned tasks.

As the project briefs developed, she created interactive, visual formats for recording student achievement of the outcomes. The approach requires students and instructors to complete portions of the assessments and pass them back and forth, resulting in the side-by-side visualization of students' and instructors' views and emphasizing the importance of both perspectives. This visual tool serves as a reflection exercise for students and a conversation starter that aids the discussion of discrepancies. Students connect what they learn over time by commenting on what they might apply in subsequent projects and creating visualizations of their performance on multiple projects. The tool also allows the instructor to aggregate information and show how all students performed on the project, providing another opportunity to discuss project goals. The instructor then modifies subsequent projects based on the assessment results and uses results to inform curricular sequencing. This instructor has since conducted additional investigations of assessment tools and has published her findings on the critical components of assessment and how to use visual appearance, wording, and form structure to improve students' understanding of feedback and to inform their subsequent learning (see Rohrbach, 2009; 2010). The goal is to continue developing assessment tools that are valuable learning experiences for students, teachers, and administrators—as well as for accreditation.

Engineering. Program accreditation through the engineering accreditor, ABET, has furthered learning outcomes assessment in engineering at CMU. All CMU engineering programs—leading to baccalaureate degrees in chemical engineering, civil and environmental engineering, electrical and computer engineering, mechanical engineering, and materials science and engineering—are accredited by ABET. The Eberly Center staff have guided and facilitated the development of educational program outcomes and student outcomes and the curricular changes associated with a rigorous and supportive academic environment and the pedagogical emphases advanced by ABET.

A faculty member in mechanical engineering explained that working with the Eberly Center has brought to CMU's engineering program greater student learning outcomes assessment, the creation of feedback loops, and improved use of data to inform curriculum development. Over a long time, for example, a computer cluster had been a part of the engineering department, yet the department lacked evidence of its educational value. Then, one year, the department gathered data from students about their experiences with these computer facilities and evaluated the use of specific hardware to complete assignments. From this assessment, the faculty learned that the hardware was outdated and that students were not making effective use of computers in assignments—leading to facility and hardware upgrades to improve the student learning experience.

Curricular changes have also been fostered through work with the Eberly Center and the PAB process. For instance, when mechanical engineering faculty learned through student learning outcomes assessment that students lacked the experimental knowledge the faculty expected, they realized something needed to be changed. Faculty devised a plan to teach experimental knowledge in two new specific courses. The feedback loops and learning outcomes assessment supported through workshops and consultations by Eberly Center staff helped faculty identify gaps in the curriculum and make appropriate curricular changes. Working through established self-study processes such as the PABs—combined with feedback from student advisory councils, regular input from engineering students via forums, and feedback from industry leaders about students’ performance in the capstone design course—has been important to advancing learning outcomes assessment and, ultimately, improving engineering students’ learning.

Humanities. The modern languages department at CMU had been developing student learning outcomes prior to the MSCHE review and had some assessment evidence documenting student competencies and skills. The curriculum review, assessment, and change process—in which all departments (with support from the Eberly Center) were expected to participate—renewed faculty interest in the process. The provost asked all departments to use a template to list program outcomes, major findings, and the actions that resulted from the findings. The modern languages department, for example, discovered that students were having trouble with higher level grammatical structures. This finding informed changes resulting in the embedding in required courses of activities related to specific skills. In addition, changes were made to give students additional opportunities for speaking in their target language to facilitate expression of higher-level ideas. The Eberly Center helped faculty understand how assessment is situated in the broader context of teaching and learning.

Next Steps

Assessment and improvement are valued processes at Carnegie Mellon University. Although faculty interest ranges from being barely tolerant of assessment to being energized by it, interest in improving teaching and learning is high at CMU. As a result, CMU plans to continue dedicating attention to assessment for improvement and focusing this work in the Eberly Center. In addition, departmental committees, such as the Mechanical Engineering Curriculum Assessment Committee, provide a structure for small groups of faculty to work more intensively on assessment and improvement for curricular revision. As an engineering faculty member stated, “While faculty may get frustrated or feel overwhelmed by the amount of data that we are collecting, working through the processes such as the PABs and at the Eberly Center have helped us use the information to improve.”

Program assessment at CMU is a dynamic, collaborative, and iterative process. The Associate Provost and the Accreditation Liaison Officer plan to remain in continual contact with assessment leaders in departments and to provide annual feedback via a summary template on outcomes and assessment. This process respects the CMU decentralized structure, and has already yielded results. As of May 2012, nearly 90% of CMU’s undergraduate programs have artifacts and completed summary templates. Ultimately, when programs have completed their assessment process, they will be expected to share their outcomes publicly. The Eberly Center for Teaching Excellence will continue to be the hub of assessment and improvement activities at CMU. Department heads participate in regular meetings with the Associate Provost for Education (who is also the Director of the Eberly Center) to discuss assessment activities and results. Meetings among department heads occur about three times a semester and assessment is a frequent topic on the agenda. Using the resources and skills of the Eberly Center, the university will continue to provide consultations, workshops, and models of student-centered outcomes to support the faculty in expanding the number of courses and programs with clearly articulated and publicly available learning outcomes—with the goal that all courses will have these in place by the next decennial MSCHE reaccreditation.

Lessons from Carnegie Mellon University

1. Respect departmental approaches to assessment. To ensure that results are meaningful to departments, encourage variability in approaches to collecting learning outcomes results, the timing of reviews, and the uses of outcomes to guide curriculum revision.
2. Identify what most interests faculty in assessment and leverage this in the promotion of assessment activities. At CMU, assessment is driven by the level of performance demanded by CMU faculty and staff, whereas external calls for accountability—while acknowledged—are less influential.
3. Take advantage of accreditation self-study and strategic planning processes, and leverage existing institutional structures to stimulate assessment improvements.
4. Provide professional development and structured opportunities to faculty and departments for support and feedback on their assessment work.
5. Ultimately, student learning outcomes assessment should improve the quality of teaching and learning. Advance these connections and encourage faculty and staff to exchange ideas about creative approaches to assessment and how these influence their practice.

References

- Assessment Task Force, Carnegie Mellon University. (2008, December 12). ATF position on assessment. Pittsburgh, PA: Carnegie Mellon University. Retrieved from <https://www.cmu.edu/teaching/assessment/history/ATFdocs/ATFpositionOnAssessment.pdf>
- Carnegie Mellon University (CMU). (2008). 2008 self-study report (Prepared for the Middle States Commission on Higher Education 2008 reaccreditation). Pittsburgh, PA: Carnegie Mellon University.
- President's Advisory Boards, Carnegie Mellon University. (n.d.). Purpose and process. Retrieved from <http://www.cmu.edu/advisory-board/purpose-process.html>
- Rohrbach, S. (2009). Educational assessment in emerging areas of design: Toward the development of a systematic framework based on a study of rubrics. In *Undisciplined! Proceedings of the Design Research Society Conference*, Sheffield, UK, July 2008, pp. 16–19.
- Rohrbach, S. (2010). Contemporary learning tools: Designing assessments that are visual, interactive, and participatory. Paper presented at “New Contexts: New Practices,” AIGA (American Institute of Graphic Arts) Design Education Conference, Raleigh, NC, October 8–10.

NILOA Examples of Good Assessment Practice

With funding from several foundations, the National Institute for Learning Outcomes Assessment's (NILOA) mission is to examine institutional practice and help institutions productively use assessment data to inform and strengthen undergraduate education as well as to communicate with policy makers, families, and other stakeholders. Documenting what students learn and can do is of growing interest both on campus and with accrediting groups, higher education associations, families, employers, and policy makers. And yet, we know far too little about what actually happens in assessment on campuses around the country. NILOA conducted several short case studies, titled *Examples of Good Assessment Practice*, of two- and four-year institutions in order to document institutional achievements in the assessment of student learning outcomes and highlight promising practices in using assessment data for improvement and decision-making. The data collection process included a thorough examination of the websites and relevant assessment documents (accreditation self-studies, assessment reports, program reviews, etc.) for selected institutions and interviews with key institutional representatives.

About NILOA

- The National Institute for Learning Outcomes Assessment (NILOA) was established in December 2008. It is funded by Lumina Foundation for Education and the Teagle Foundation.
- NILOA is co-located at the University of Illinois and Indiana University.
- The NILOA website went live on February 11, 2009.
www.learningoutcomesassessment.org
- The NILOA research team has reviewed over 1,000 institution websites for learning outcomes assessment transparency.
- NILOA's founding director, George Kuh, founded the National Survey for Student Engagement (NSSE).
- The other co-principal investigator for NILOA, Stanley Ikenberry, was president of the University of Illinois from 1979 to 1995 and of the American Council of Education from 1996 to 2001. He served again as Interim President of the University of Illinois in 2010.

National Institute for Learning Outcomes Assessment

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