

Are They

Learning?

A College Trustee's Guide to Assessing Academic Effectiveness



AMERICAN COUNCIL OF TRUSTEES AND ALUMNI
Institute for Effective Governance

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Is it possible to measure intellectual growth in college? To know whether students graduate with core collegiate skills in analytical reasoning, effective writing, and mathematics? Can you measure the value that your institution's general academic program adds during a student's college years?

Yes, you certainly can. There are readily available tests in wide use around the nation that are inexpensive and which allow easy benchmarking for results. They are **valid**, that is to say, they yield results that are true for the subjects they measure and **reliable**, that is to say, they yield consistent results. They reveal whether an institution as a whole is effective in increasing student learning and can even be used to show an individual student's progress through core collegiate skills. Since they are **nationally-normed** with the average results of all institutions in America that used the test in a given year, your institution can, if it desires, interpret its scores in light of institutions across the nation.

In other words, there are powerful tools that your institution can use in a number of ways to measure effectiveness in the single most important thing you do: educating students.

AMERICAN COUNCIL OF TRUSTEES AND ALUMNI



Launched in 1995, the American Council of Trustees and Alumni (ACTA) is an independent, non-profit organization dedicated to working with alumni, donors, trustees, and education leaders across the country to support liberal arts education, high academic standards, the free exchange of ideas on campus, and high-quality education at an affordable price.

ACTA's Institute for Effective Governance, founded in 2003 by college and university trustees for trustees, is devoted to enhancing boards' effectiveness and helping trustees fulfill their fiduciary responsibilities fully and effectively. IEG offers a range of services tailored to the specific needs of individual boards, and focuses on academic quality, academic freedom, and accountability.

If higher education has the courage to take responsibility for honestly assessing student learning and publishing the results, the measuring stick will be a tool. If it doesn't, the stick could easily become a weapon. The time for making that choice is drawing to a close.

Kevin Carey, Director of Education Policy,
New America Foundation
"Student Learning: Measure or Perish"
Chronicle of Higher Education, Dec. 12, 2010



Why Measure General Collegiate Skills?

Almost every professor gives quizzes and tests and assigns a final grade to each student. Why does your institution need to look further for evidence of student learning gains?

First, most professors are deeply devoted to their academic specialty. They normally take responsibility for their classes and their subjects, and only rarely for the overall intellectual progress of the students. One might hope that the English department would be concerned if students in its classes had only a grade-school grasp of mathematics or were scientifically illiterate. One might hope that engineering professors would firmly correct students for poor grammar and writing style. But those expectations, however reasonable, are commonly found to be unrealistic.

Examined more broadly, evidence is mounting that a number of colleges must do a better job of ensuring that graduates have the basic collegiate skills that employers expect. Demands from the public, the press, and policymakers for better results are increasing—rapidly, too.

The *National Adult Literacy Survey* and the *National Assessment of Adult Literacy*, conducted by the U.S. Department of Education in 1992 and 2003, revealed that most college graduates fall below proficiency in verbal and quantitative literacy. They cannot reliably answer questions that require comparison of viewpoints in two different editorials or compare the cost per ounce of food items. These shocking findings were confirmed in 2006 with an analysis conducted by the prestigious American Institute for Research.¹

Then in 2011, the University of Chicago Press published *Academically Adrift: Limited Learning on College Campuses*, by Professor Richard Arum of New York University and Professor Josipa Roksa of the University of Virginia. Working with the Social Science Research Council, these distinguished sociologists tested over 2,300 college students at 24 accredited institutions, and their findings have rattled the nation. 45% of the students showed no significant intellectual gains after the first two years of college, and 36% showed no improvement after four years. The study showed that “high- and low-performing students can be found at each institution and within each level of selectivity.”²

Make no mistake about these findings: a student can pay the earth in tuition and *leave with a diploma, but without a college education.*

Responsible colleges should not play dice with students' futures—or with the hard-earned money of students, their families, and taxpayers. That's why it's important to measure student learning

and adopt appropriate strategies, as necessary, to improve teaching and learning on their campuses.

Responsible colleges and universities create a culture of assessment on which they craft academic policy to improve student learning. Years ago, an undistinguished regional university, Northwest Missouri State, transformed itself into the academic powerhouse now known as Truman State University, and its drive to excellence was powered by careful assessment. As one Truman State professor wrote, “The key is whether the numbers shake you out of your complacency. We all thought we were good before, but the numbers convinced us that we needed to make changes in the curriculum and in the way we designed student questions and assignments.” Assessment information enabled the faculty to decide upon curricular change more swiftly than they might have otherwise.³

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Truman State professor cited in USA Today, Feb. 2, 1987

Three Major Assessment Instruments

At this time there are three assessments in wide use to measure academic progress in core collegiate skills. Many institutions choose a single one, though some colleges and universities test cohorts

of students with different instruments. All three of these tests can be used to show the value-added factor of a college education and to show attainment of skills relative to other institutions. Many institutions for accountability purposes choose to report the results on their websites; others use the information for institutional planning and diagnostic purposes. Increasingly, institutions use general education testing to cast light on the effectiveness of particular educational practices; some institutions also use these tests to identify academic weaknesses in individual students in order to develop appropriate interventions.

The **Collegiate Learning Assessment (CLA)**⁴ began development in 2000 under the auspices of the Council on Aid to Education, which was then a subsidiary of the Rand Corporation; the instrument was piloted in 2002-03. Its supporters include the Carnegie Corporation, the Teagle Foundation, The Bill and Melinda Gates Foundation, the Ford Foundation, and the Lumina Foundation. At this time, over 500 public and private institutions and 250,000 students have participated in the CLA; over 80% of the public universities participating in the Association of Public and Land Grant Universities’ Voluntary System of Accountability have chosen the CLA as their assessment system. The CLA is the instrument that was used for the investigations that led to the publication of *Academically Adrift* and continues to inform the educational research of the Social Science Research Council. In 2012-13, it will become the assessment instrument of choice for the outcomes assessment

project of the 31 nations in the Organization of Economic Cooperation and Development.

Institutions may choose between a low-cost assessment of institutional effectiveness, in which a cross-section of 100 freshmen and 100 seniors take the test, or they may choose to sample in-depth within their student population to determine how relative subgroups (e.g., demographically, choice of major) contribute to the overall institutional performance. The standard administration of the CLA costs \$6,600 and can identify a difference in performance between the freshmen and seniors down to half a standard deviation, yielding highly useful insights. The CLA has also developed a series of Performance Task Academies whose purpose is to train faculty and administrators to construct college courses that have clear and measurable positive effects on core collegiate skills. More than 1,000 individual faculty and administrators have attended Performance Task Academies run by the CLA.

The CLA differs from other general education assessments in that it is based entirely on performance tasks that replicate the challenges of “real world” employment. An example provided by the CLA of a typical assessment exercise can be seen in Figure 1.

Although the CLA is widely used as a measure of institutional accountability for academic progress, it has a wider purpose in teaching and learning. In the words of Roger Benjamin, the president of the Council on Aid to Education, “The principal

Figure 1. **Typical CLA Assessment Exercise**

You are the assistant to Pat Williams, the president of DynaTech, a company that makes precision electronic instruments and navigational equipment. Sally Evans, a member of DynaTech’s sales force, recommended that DynaTech buy a small private plane (a SwiftAir 235) that she and other members of the sales force could use to visit customers. Pat was about to approve the purchase when there was an accident involving a SwiftAir 235.

You are provided with the following documentation:

1. Newspaper articles about the accident
2. Federal Accident Report on in-flight breakups in single engine planes
3. Pat’s e-mail to you and Sally’s e-mail to Pat
4. Charts on SwiftAir’s performance characteristics
5. *Amateur Pilot* article comparing SwiftAir 235 to similar planes
6. Pictures and description of SwiftAir Models 180 and 235

Please prepare a memo that addresses several questions, including what data support or refute the claim that the type of wing on the SwiftAir 235 leads to more in-flight breakups, what other factors might have contributed to the accident and should be taken into account, and your overall recommendation about whether or not DynaTech should purchase the plane.

goal of the CLA is to assist faculty in improving teaching and learning.” In 2012, the CLA released an individual student-focused version of the test, designed to provide fine-grained institutional accountability measures, as well as a diagnostic instrument and credential for individual student achievement. Applications for the new instrument include documentation of high school proficiencies for college admissions and certification of proficiency in higher order thinking skills that could be used along with the student’s transcript as a credential for prospective employers.

The **Proficiency Profile**⁵ is administered by Education Testing Service (ETS). The ETS Proficiency Profile is the successor to the Academic Profile and the MAPP (Measurement of Academic Progress and Proficiency). Administration of the test costs \$16.50 per student for both the paper and online format, with discounts for numbers greater than 500. Over 400 institutions have used the Proficiency Profile or an earlier version of the instrument. It measures skills in reading/critical thinking, writing, and mathematics in a multiple-choice format, and offers an optional essay module. It is available in two versions: a two-hour exam and a forty-minute version. “The ETS Proficiency Profile has the student demonstrate knowledge, comprehension, application and synthesis of a variety of skills. Such an approach allows institutions to address the complex demonstrations of skills. ... Today, these levels of proficiency ... are equated with accountability in student learning,” says Dr. Hazel A. Ervin, Director of General

Education and associate professor of English at Morehouse College. Other institutions that use the Proficiency Profile include Clemson University⁶; Oklahoma State University⁷; and Florida Agricultural and Mechanical University⁸, which seeks to test all incoming freshmen and graduating seniors with this instrument.

Figure 2.
ETS Proficiency Profile Sample Question

From 6:00 a.m. to 7:00 a.m. one morning, the temperature rose 7° F. From 7:00 a.m. to 8:00 a.m., the temperature rose 2° F, and from 8:00 a.m. to 9:00 a.m., the temperature rose 3° F. If the temperature was 55° F at 9:00 a.m., what was the temperature at 6:00 a.m.?

- (A) 43° F
- (B) 53° F
- (C) 57° F
- (D) 67° F

Collegiate Assessment of Academic Proficiency (CAAP)⁹ is administered by ACT. The CAAP has six modules: reading, writing, mathematics, science, and critical thinking, plus an essay module: the first five modules are multiple-choice tests. Each module takes forty minutes to complete. The five-module multiple-choice test costs \$21 per student, with an additional \$14 fee for the essay module, with discounted fees for administrations of over 500 tests or for a single multiple-choice module. Institutions may choose which of the modules they

wish to use. Nearly 500 colleges and universities have used the CAAP.

The CAAP forms an important part of Truman State’s storied assessment system: for many years, half of the freshman class took the CAAP, which was then administered again to half of the junior class, while the other half used the forerunner of the ETS Proficiency Profile.

Since 1998, all South Dakota public colleges and universities administer the CAAP to all students, and it has been a major diagnostic tool for identifying areas of academic weakness, both individual and institutional. The South Dakota Board of Regents reports:

“After one university fell below the national mean in English five out of six years, that university implemented an additional writing requirement for all of its students. Another university has placed a new focus on math after receiving lower than expected scores in that subject.”

Before CAAP, we really did not have the mechanism other than anecdotes to show that our universities have increased the knowledge of students. But if you want to use data-driven decision making, anecdotes just don't do it.

*Lesta Turchen, Chief Academic Officer,
South Dakota Board of Regents*

According to Lesta Turchen, the Board of Regents chief academic officer at the time the assessment initiative began, “The CAAP exam has become a

primary tool for working with individual students to improve their skill levels so that they can be successful in upper-division courses in their majors. If you can better prepare students to be successful in their coursework, the students themselves are more likely to reach their personal goals.”

Figure 3. CAAP Sample Question

Writing Skills Sample Passage and Items

In the end, everyone gives up jogging. Some find that their strenuous efforts to earn a living **drains (1)** away their energy.

1. A. NO CHANGE
B. drain
C. has drained
D. is draining

Others **suffering from (2)** defeat by the hazards of the course, from hard pavement to muddy tracks, and from smog to sleet and snow.

2. A. NO CHANGE
B. suffered
C. suffer
D. suffering with

These can also (3) collapse in their sneakers.

3. A. NO CHANGE
B. Still others
C. They can also
D. They also can

Challenges and Solutions for Implementation

It is rare that accountability measures do not encounter resistance, and assessment of general education is no exception. Students usually face no consequence for poor performance on these assessments and some will not take the examination as a serious exercise. The testing companies offer a variety of suggestions for improving the accuracy of the results, including prizes for high scores and other incentives for good-faith participation. At institutions where individual performance is monitored and serves as a potential gateway to upper-level courses, there is significantly less difficulty in ensuring serious participation. Building a faculty commitment to assessment is also a challenge: some institutions have established prizes for departments whose majors can show particularly strong gains in collegiate skills via general education assessments or other objective assessments of intellectual growth. The Association of Public and Land Grant Universities (APLU) and the Council of Independent Colleges (CIC) have helped to encourage the faculty and administration of their many member institutions to use the CLA, the CAAP, or the Proficiency Profile.

You may hear the argument that using a standardized measure of general education progress will encourage “teaching to the test.” In the case of the CLA—which has no multiple choice questions—such an argument is unsustainable: what, after all, could be wrong about helping students deepen the cognitive skills that enable

them to do well on an assessment that imitates the intellectual challenges of the workplace? If the instrument tests meaningful and appropriate skills and knowledge—and that is true of the CLA, CAAP, and Proficiency Profile—a reasonable counter-question is why any professor or administrator would be afraid to have such basic information about student progress.

You may hear the argument that a single test such as the tests mentioned above cannot provide a clear picture of the academic effectiveness of the institution. That is true: you will also want to know the results of professional licensure examinations, average GRE scores, and other measures of academic progress. No single medical test tells a doctor everything about a patient’s health. But that is not an argument against using medical diagnostics that are routine procedure in quality medical care.

You may be urged to adopt a portfolio assessment, but it is important not to confuse quantifiable, nationally-normed results with a portfolio assessment. A portfolio assessment is based on selecting the “best” performances to include, rather than documents that are representative of the abilities of the candidate. They lack the reliability and validity that the standardized general education assessments have. And in the crucial area of formative assessment, it is difficult to make decisions about how to improve teaching and learning relying on portfolios. There is, in short, a “fudge factor” that a portfolio allows: it is a system

that is not well suited for accountability or even objective measurement.

In sum, higher education now has several cost-effective measurement tools that show how well students are gaining the core skills that should be expected in a high-quality degree program. Governing boards, faculty, and administrators all have a stake in objectively measuring the academic strength of their institution and then building on that strength and remedying any programmatic weaknesses. Objective data that allow comparison from year to year will benchmark progress, and help the school continuously improve teaching and learning.

Let ACTA know if we can advise and help you understand and implement this crucial measurement of academic progress.

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