

The CLA Contribution to Improvement of Teaching and Learning in Higher Education

Roger Benjamin

Council for Aid to Education

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Of course the CLA can be viewed as an assessment instrument. Equally, however, it can be viewed as an instrument for the reform of teaching and learning in higher education. It is important to spell out what this means because the word assessment places the CLA in a box occupied by many other assessment tools, including multiple choice tests. When examined for its contributions to teaching and learning, the CLA is in a league of its own.

The Reform Movement in Higher Education

Recent theories of learning have moved beyond a focus on content only.

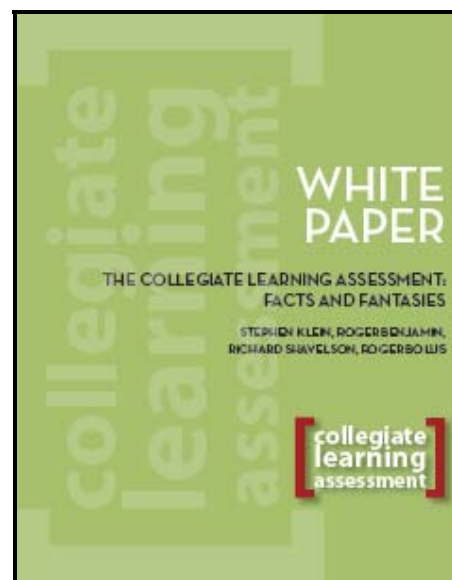
At the cognitive science level new theories of learning stress the importance of improving students' ability to structure learning experiences that help them use what they have learned in new settings. Simon argues (1996) that the meaning of "knowing" has changed from being able to recall information to being able to find and use it. Bransford et al. (2000, p. 6) notes that the "...sheer magnitude of human knowledge renders its coverage by education an impossibility; rather, the goal is conceived as helping students develop the intellectual tools and learning strategies needed to acquire the knowledge to think productively." Moreover, the knowledge economy places a premium on the ability of citizens to be able to access, structure, and use information, not merely accrue facts.

Responding to these trends, the reform effort itself has three parts: 1) adoption of a student-centered approach in teaching that shifts the balance of the undergraduate experience from lecture to smaller, more interactive formats such as seminars in which much more analytic-based writing on the part of students is required; 2) changes in emphasis from facts in textbooks to cases and problems that provide students much more opportunity to improve their higher order skills; and 3) use of assessments that are aligned with and supportive of these two important reforms.

This is where the CLA comes in. First, it was explicitly designed to contribute to the other two pillars of the reform process. In a narrow sense, the CLA performance tasks are not tests. The student is presented with a series of

Additional CLA Literature

*The Collegiate Learning Assessment:
Facts & Fantasies*
(Klein, Benjamin, Shavelson & Bolus)



"The CLA focuses on the institution (rather than the student) as the unit of analysis. Its goal is to provide a summative assessment of the value added by the school's institution and other programs (taken as a whole) with respect to certain important learning outcomes. The results with these measures are intended to send a signal to administrators, faculty and students about some of the competencies that need to be developed, the level of performance attained by students at their institution, and, most importantly, whether that level is better, worse, or about the same as what would be expected given the ability level of its incoming students...In short, the CLA's main goal is to provide information that will help colleges and universities determine how much their students are improving and whether that improvement is in line with the gains of comparable students at other institutions."

documents, tables, and figures and asked to solve a problem or recommend a course of action based on reasoned argument. The performance tasks require the kind of analytical-based writing suggested in the student-centered approach to teaching. CLA performance tasks are also exemplars of the kind of case study and problem approach increasingly being favored by curriculum designers and text book publishers.

From the Institution to the Classroom: The CLA Comparison Strategy

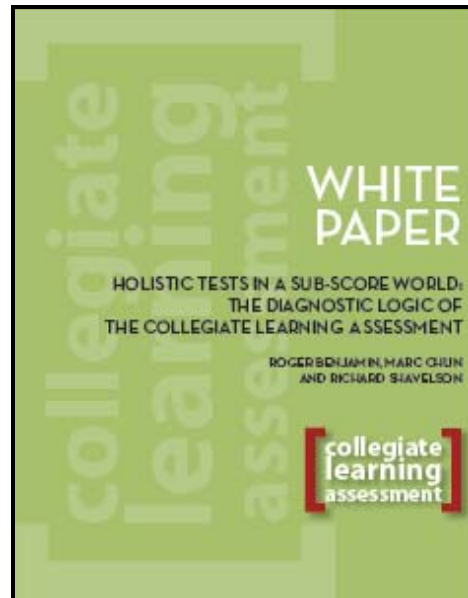
1. The CLA's single global institutional score is based on the average of the sample of students taking the CLA. In reports to the institution, its score is presented in comparison to those of all other participating institutions. To account for variation in competencies the students bring to colleges, CLA institutional scores are adjusted for the SAT scores of the participating students. The CLA scores, then, reflect the amount of value-added improvement in performance between the freshman year (entering students) and the senior year (graduating students). When the scores of all institutions taking the CLA are placed in a regression equation, the institutions cluster along a straight line. Any particular institution's value added may fall anywhere from the lowest ten percent to the highest ten percent on the plotted line at a particular level of SAT intake.

In a basic sense, it does not matter where the institution falls the first time the institution tests. The comparison gives faculty and administrators a benchmark, a signal about where their institution stands. There is up to a 3.0 standard deviation of difference between similarly situated institutions along this regression plot. In other words, there are very large differences in CLA scores between institutions that accept students with similar incoming cognitive ability. This means there is a large canvas for studying best practices in the institutions that perform better than the equation predicts as opposed to those that perform worse. The question then is what should the faculty and administrators of institutions do to improve the degree of their value added. That leads to the following subsequent steps.

2. Correlate inputs, processes and outputs. A logical next step is for the college's institutional research office to correlate the inputs and processes (or their proxies such as class size, expenditures per pupil, incoming SAT scores of the freshmen, per student endowment expenditures, etc.) with outputs of undergraduate education such as retention and graduation rates and, of course, CLA outcomes and other measures of learning. The goal here is to develop an efficient description of the factors that correlate with positive CLA results.

Additional CLA Literature

*Holistic Tests in a Sub-Score World:
The Diagnostic Logic of the
Collegiate Learning Assessment*
(Benjamin, Chun & Shavelson)



“One useful thing that can be done with CLA-type tasks is to put them in the hands of faculty members so that they can be used both as a focus for program and departmental planning, monitoring, and feedback, and as a classroom tool for teaching and learning. If the tasks used in the CLA are the kinds of tasks colleges say they want to their students to succeed at, and we have evidence that they are, it seems reasonable to incorporate them into program and classroom teaching and learning activities. By making a wide variety of such tasks available, we believe this will increase the capacity of students to solve problems, think critically, and communicate their ideas not only on the classroom-embedded tasks themselves, but on similar types of tasks that students encounter in life.”

To read these articles in their entirety, and to view other CLA publications, please visit:
http://www.cae.org/content/pro_collegiate_reports_publications.htm

3. Conduct in-depth analysis. While the institutional score signals the place of the college compared to all other colleges administering the CLA, college administrators and faculty members will want to know more about the relative contributions to that score by colleges (if the institution is a university) or by certain departments or programs (if the institution is a college). Which departments or programs, for example, are particularly strong or weak contributors to their CLA results?

4. Conduct audit of existing assessments. There is a saying in the assessment world that a curriculum is determined by what faculty test for. Thus it will be useful to understand the extent to which faculty are using multiple choice or essay tests in their classrooms. Are the tests given measuring what is important (such as critical thinking, problem solving or analytical reasoning)? How well are the students doing on current tests?

5. Examine best practices found to produce good CLA results. Many colleges participating in the CLA are working together in consortia of similar institutions. They are highlighting and sharing best practices that are correlated with noteworthy CLA scores. For example, it appears that schools that require more analytic-based writing do better on the CLA than those that do not.

6. The most important step: get published CLA performance tasks into the hands of the faculty so that they can:

- Use them in their classroom where they have greater knowledge of the strengths and weaknesses of their students;
- Develop performance tasks that are based on the scoring guide of the published tasks;
- Choose case studies and problems for text material that is congruent with the documents in the CLA performance tasks rather than the content dominated textbooks extant;
- Adopt a student-centered approach to teaching that calls for much more analytic-based writing on the part of the students and diagnostic feedback to the student about how they can improve their performance.

In sum, the above steps comprise an early version of what we, at CAE, intend to become a reinforcing system of continuous improvement of teaching and learning.¹ The institution's global score provides a critical signal that triggers an internal focus on what correlates with the score. It does not really matter where the institution is on the initial test administrations. The important questions become related to (a) understanding what led to those results and (b) deciding what improvement goals might make sense for the future.²

References

Bransford, J., A. Brown, and R. Cocking (eds.) (2000). *How People Learn*. Washington D.C.: The National Academy Press.

Simon, H. (1996) *The Sciences of the Artificial*. Boston, MA: MIT Press. U.S. Department of Education (2006).

¹ This is precisely what higher education has in the research realm. Through peer review research has a public face that encourages and requires researchers to respond to criticism, evaluate the claims of other researchers, in short engage in a never ending process of continuous improvement. If we followed the above steps for undergraduate assessment, we could hope to eventually also create a continuous system of improvement of teaching and learning.

² The logic of the continuous improvement model is as follows. The CLA does not claim to measure all of undergraduate education, nor does it claim to capture all aspects of critical thinking, analytical reasoning, problem solving and writing, called higher order skills. Rather, our claim is that the performance tasks themselves have a high degree of overlap with the stated missions of most colleges; they have important face validity because faculty agree that graduating students should be able to perform these tasks at an acceptable level. Therefore, we claim that any definition of higher order skills will include, among its characteristics, the attributes the CLA performance tasks measure. In turn, we are able to argue that increasing CLA scores increases higher order skills.