

ASSESSING CRITICAL THINKING, ANALYTICAL REASONING, PROBLEM-SOLVING and WRITING in HIGH SCHOOL

Richard H. Hersh, Co-Director
Collegiate Learning Assessment (CLA)
College and Work Readiness Assessment (CWRA)

rhersh@sbcglobal.net

There are results that matter for high school graduates in the 21st century— and these results are *different* from and go beyond traditional metrics. (RESULTS THAT MATTER: 21st Century Skills and High School Reform, Partnership for 21st Century Skills, March, 2006)

There is virtually unanimous agreement that in a “flat” world being well educated is necessary to compete economically and thrive democratically in the global reality of the 21st century. Increasing the number of better educated people (economists prefer the designation, “human capital”) is key to our future. Yet virtually all research and commission studies over the past twenty years, in and out of the academy, conclude that the acquisition of appropriate 21st century skills critical to our nation’s future, at both the K-12 and college levels, is inadequate.

There are myriad reasons given for such educational inadequacy but one that has contributed mightily to the problem has been that at all education levels we have fallen into the trap of valuing what we measure rather than measuring what we value. Minimizing testing time and cost has taken priority over quality assessment resulting in high-stakes, multiple-choice tests that have reduced learning to knowledge acquisition and comprehension that fit easily into such testing formats. “Higher” education at every level thereby has been lowered.

Eight years ago, the Collegiate Learning Assessment project (CLA) began developing a value-added assessment methodology that assesses *critical thinking, analytical reasoning, problem-solving, and writing*, each of which and together are necessary—but certainly not sufficient—educational outcomes. The CLA methodology utilizes essays only in its assessment of such higher order learning. Having assessed over 80,000 students on over two-hundred campuses representing a national sample of colleges and universities, we have learned that not only is higher education not doing as well as it

should, but that unless and until students are exposed to far more extensive and intensive teaching of such outcomes prior to college, there is little hope of achieving the educational success individuals and this nation must achieve to measure up to increasingly high international standards.

Critical thinking, analytical reasoning, problem-solving, and writing are what we call “collective outcomes” by which we mean that they cannot *adequately* be taught in any one class or year; all teachers and faculty have a responsibility to teach for such skills within each subject area and discipline. In this sense, the outcomes CLA measures are cumulative in nature and require the collective efforts and commitment of all teachers in every class and year, before and during college.

Given this reality, the CLA project is now piloting its performance measures in high schools. Mindful that not all students go on to college and that all students must master these skills for whatever their future work and careers, we have developed the College and Work Readiness Assessment (CWRA) that high schools can use to gain an institution-level perspective on how well they are doing as compared to similarly situated high schools in their region or throughout the United States. The CWRA measures are meant to be formative in nature to aid teaching and learning rather than judge or rank the quality of a school, and we have found that such data help administrators and teachers discuss in more explicit and transparent ways how their pedagogy, curriculum, and assessment can be improved to teach such skills across subjects and grades.

We believe any attempt to measure some of the most important learning outcomes at the high school level requires a new kind of metric that helps educators improve the efficacy of their programs. The CWRA offers an innovative and productive way of moving beyond current assessment methods in order to assist achievement of crucial learning for the 21st century. As we have done with colleges and universities in the early stages of the CLA development, we invite your interest in partnering with us and a consortium of high schools across the country as we learn how best to apply our performance measures in the secondary school setting.

Additional information about the CWRA may be obtained on our website www.cae.org/cla. Under the “Articles/Research” tab one will find numerous articles, examples of the measures, and the nature of the institutional report each school receives once testing and analysis are completed. We point especially to the papers entitled: “*Critical Thinking Skills*,” that defines each of the outcomes being measured; “*Teaching to A Test Worth Teaching To*,” that offers a rationale for assessment as a form of teaching and learning; “*Life is Not A Multiple Choice Question*,” that makes the case for something more than multiple choice testing; and “*Faster, Better, Cheaper: The Iron Triangle of Higher Education Assessment*,” that explains the consequences of elevating cost and time over quality when assessing learning.