

THE NATIONAL CONFERENCE ON NEXT GENERATION ASSESSMENT SYSTEMS

AN ASSESSMENT SYSTEM FOR THE UNITED STATES: WHY NOT BUILD ON THE BEST?

This policy brief is based on a paper presented by Marc Tucker, National Center on Education and the Economy, at the National Conference on Next Generation K – 12 Assessment Systems, March 2010. Download a copy of the final paper by Marc Tucker, as well as other papers presented at the conference, at <http://www.k12center.org/publications.html>.

This paper describes the model that underlies National Center on Education and the Economy's State Consortium for Board Examination Systems. Based on exams in countries with the best-performing education systems, the model consists of high-school programs of study covering the whole core curriculum. Each course has a well-constructed syllabus with matching instructional materials, high-quality examinations, and high-quality training for the teachers of the courses. The National Center on Education and the Economy (NCEE) has identified the world's best board examination systems available in English for use in the United States and negotiated the alignment with the Common Core Standards. The states in the consortium will pilot the use of these exams in their high schools. NCEE will set the pass points for the lower division exams to the level of literacy required to be successful in the initial credit-bearing courses in open admissions colleges. Students who pass their lower division exams by the end of their sophomore year will be certified for a special diploma and enrollment in an open admissions college without having to take remedial courses. Or they can stay in high school to take an upper division program designed to get them into a selective college. Students who do not pass will receive help in those areas in which they did not do well on the exam. The aim is for virtually all students to be ready to pass their exams and therefore ready to succeed in programs leading to industry qualifications or in 4-year colleges.

The Goals for a Testing System

For more than two decades, the National Center on Education and the Economy (NCEE) has studied intensely the education systems of those countries that consistently demonstrate the best performance on international tests. The research has produced benchmarks of their education standards, instructional systems, and assessments—what they do that the United States could adopt or adapt. Based on the benchmarking research, a testing system should have the following qualities:



Center for
K – 12 Assessment
& Performance Management

Created by Educational Testing Service (ETS) to forward a larger social mission, the Center for K – 12 Assessment & Performance Management has been given the directive to serve as an independent catalyst and resource for the improvement of measurement and data systems to enhance student achievement.

- *Assessments that, first and foremost, advance student learning.* Measuring student achievement accurately is essential, but not enough. The assessment system itself must make clear to students and teachers what kind of student work will meet the standard. It should model good teaching and discourage the kind of teaching that enables students to get the right answer without really understanding the material.
- *Assessments that are conceived as part of a highly integrated instructional or learning system.* The countries with the best student achievement require a core curriculum at the high-school level with a well-constructed syllabus for each course, accompanied by matching instructional materials and a high-quality exam based on the syllabus. Professional development is tailored to the syllabus.
- *Assessments that are curriculum-based as well as standards-based.* Standards are general; teachers and students need the kind of specific guidance on what is expected of them that comes from a well-specified curriculum.
- *Assessments that promote and measure critical thinking, strong analysis, and real imagination and creativity.* No high-achieving country uses multiple-choice, machine-scored tests anywhere near as much as the United States. Such tests cannot measure skills/attributes that are important to student success.
- *Assessments that are balanced, in the sense that they can support instruction as it is taking place, by providing immediate, targeted feedback on student performance, as well as provide summative information to a variety of audiences, when a student has completed a course or a program of study.* In addition, summative tests could combine results of a timed test with assessments of a portfolio of student work performed during the school year. This would return classroom-based assessment to its former status.
- *Assessments that are both reliable and valid.* The United States has emphasized reliability (the scoring is technically correct and consistent) and downplayed tests that accurately measure the more complex standards (validity). Other countries have obtained reliability through professionally scored exam systems, combined with collections of student work that are scored by teachers and checked by professional scorers.
- *Assessments that cannot be test-prepped.* Good assessments make the invidious practice of test-prep unrewarding because they give students questions that do not look like the ones they practiced, but that call for the understanding and skill they should have mastered.
- *Assessment standards that the states cannot lower.* The national standards must be implemented in ways that prevent states from lowering performance standards.
- *Assessments that can motivate students to take tough courses and to study hard in school.* Students in other countries cannot move on unless they have passed qualifying exams.

- *Assessments that, when combined with the accountability system, do not produce a narrow curriculum.* The consequence of the emphasis on basic skills under the No Child Left Behind Act has been to narrow the core curriculum for all students to mathematics and English language arts. A new national assessment system must provide incentives to states and schools to teach the whole core curriculum.
- *Assessments that make reasonable accommodations for the disabled.* New research on the use of advanced technologies with this population should be incorporated in any assessment design.
- *Assessments the country can afford.* Superior assessments do cost more than the United States spends on per pupil assessments, but this consortium offers a strategy for offsetting this increase with other cost reductions.

Getting Started on a High-School Exam System

NCEE has established a State Consortium for Board Examination Systems. Instead of building an assessment system with the attributes just described from scratch, consortium members would start by adopting the one or more of the world's best instruction and examination systems, modified as necessary to reflect the Common Core Standards. These systems meet all the criteria just described. They are curriculum-based; offer complete instructional systems; and provide syllabi with matching materials, exams, professional scoring, and teacher training. They address both basic skills and the full range of desired knowledge and skills such as critical thinking and analysis. They include tools for formative assessments as well as summative assessments. They make clear the level of performance students need to move on. To get started:

- States would require their high schools to adopt at least one of the instructional/exam systems that NCEE has identified for use in the first two grades of high school (QualityCore program from ACT; the International General Certificate of Secondary Education from the University of Cambridge International Examinations; and the International General Certificate of Secondary Education from Pearson/Edexcel). All of the programs would be set to a single pass point calibrated to expectations in credit-bearing courses of the first year of open-admissions colleges. Students who pass the exams at the end of their sophomore year could enroll immediately at open admission 2- or 4-year campuses or remain in high school for studies designed to help them gain admission to competitive colleges/universities. High schools would provide customized education for those students who did not make the standard for the exam, and the students could retake the exams as often as they wish. This is a move-on-when-ready system.
- The experience of other countries indicates that this system would be immediately motivating to high-school students. It would encourage them to take tough courses and study hard so they could leave early, and the money saved in the upper grades could be used to help students who fail the exams.

All of the organizations that provide the lower division exams have agreed to modify them as necessary to comply with the Common Core Standards and to adjust any language/spelling differences. With these modifications, the United States could adopt the world's best instructional systems and use the best assessments at a fraction of the cost of developing them from scratch and have them available much sooner.

A High-School Assessment System That Improves on the World's Best

Once these standard-setting instructional systems are in place, they can be improved upon, largely through the use of advanced technology. Computer-based systems using simulations and other dynamic models can require students to demonstrate higher-order skills. As this field is developed, grading of certain qualities can become more precise than now, and the costs held down. Advances in instructional technology could enable almost all of the content of summative assessments to be embedded in the curriculum itself. The technology would record student progress and allow learning and assessment to take place anywhere, a system that is under development in Australia at this time.

The K–8 Assessment System

NCEE's consortium will not offer assessments in the K–8 arena, but NCEE's international benchmarking research provides a K–8 assessment design. In almost all high-performing countries, there are no stakes or very low stakes for K–8 teachers, although in some countries student assessment results are used as a signal to authorities that a school needs a visit by school inspectors. National tests or exams usually come at the end-of-grade bands and are mainly scored by the students' teachers (teacher scoring is often considered an important part of professional development). Most assessment is done with prompts calling for essay-type responses. In contrast, the United States is almost alone in developing a testing system designed to be insensitive to the curriculum students have taken.

The proposed K–8 assessment system would divide the grades into bands at important junctions. Students would be given a diagnostic assessment on entering kindergarten and then be given summative assessments at the end of Grades 3, 5, and 8. The assessments would reflect a natural learning progression in the curriculum. The summative assessments would include computer-scored, multiple-choice items, though fewer than is now typical, and more and longer constructed-response items. Similar items would also be available for use by teachers during the year. Scores on extended assignments would be included in the final grade for the year, along with the score on the final exams.

The learning progression for each major subject in the K–8 system curriculum would be used to construct a curriculum framework for that subject, specifying which topics are to be taught, grade by grade. Publishers of texts and other instructional materials would use these frameworks to guide their production of instructional materials. This means that tests would measure a smaller number of topics for each grade, but at greater depth. This approach could adopt the British system for pre-secondary exams or draw on the best in this country such as the New England Common Assessment Program.

Accountability

The data from the high-school design and K–8 system would enable the public to hold educators responsible for the proportion of students who are college-ready, subject by subject and grade by grade in high school and at the grade bands for the lower schools. While it cannot provide accurate measures of the contribution of each teacher to his/her students' growth, the proposed system can provide growth measures for a school as a whole. The state would establish strong incentives for school faculties to work hard to get their students college-ready. Similarly, data indicating that schools were not doing a good job of preparing their students for college and work would trigger visits by school inspectors to determine the causes and take appropriate measures.

Governing and Regulating the System

NCEE's consortium of states interested in implementing the high-school design has created a technical advisory committee to help design the necessary research needed to array the selected exams along a common scale and to ascertain the level of literacy needed to succeed in first-year, credit-bearing college courses. The consortium will have a governing board to make essential decisions.

This model, in sum, allows swift implementation of the world's best instruction and assessment systems, as well as the tools to raise student performance, without the development cost. With the addition of technology know-how, the United States could even get ahead of the pack. It can afford to implement this system, despite the hard economic times, by combining the proposed high-school exam system with the proposed move-on-when-ready system, using the money saved to boost the chances of all students to meet the performance standards.

For More Information

For more information on this assessment system model, please see the paper by Marc Tucker:

Tucker, M. (2010). *An assessment system for the United States: Why not build on the best?* Retrieved from <http://www.k12center.org/publications.html>.

For more information on the National Conference on Next Generation Assessment Systems, please see: <http://www.k12center.org/events.html>.