

**OFFICE OF INSTRUCTIONAL ENHANCEMENT AND INTERNAL OPERATIONS**  
**Summary of State Board of Education Agenda Items**  
**January 20-21, 2011**

05. Approval of pilot implementation of the State Board Examination System

Recommendation: Approval

Back-up material attached

# State Board Examination System



State Board of Education  
January 2011



# MISSISSIPPI BOARD OF EDUCATION

## VISION

*To create a world-class education system that gives students the knowledge and skills that will allow them to be successful in college and the workforce and flourish as parents and citizens.*

## MISSION

*To provide leadership through the development of policy and accountability systems so that all students are prepared to compete in the global community.*

### GOAL 1

To mobilize resources and supports to help ensure that all students exit Third Grade reading on grade level by 2020.

### GOAL 2

To reduce the dropout rate to 13% by 2013.

### GOAL 3

To reach the national average on national assessments by 2013.

## FIVE STRATEGIES TO ACCOMPLISH GOALS

Strategy 1	Strategy 2	Strategy 3	Strategy 4	Strategy 5
Implement ongoing, comprehensive reform in the areas of instruction, curriculum, assessment design and accountability systems for all grade levels, from early education through graduation.	Increase the quantity and quality of teachers.	Increase the quantity and quality of administrators.	Create a culture in Mississippi that understands the value of education.	Redesign education for the 21 <sup>st</sup> Century workforce in Mississippi.



# How the State Board Examination System Would Work

Approximate

Student  
Age

Educational Pathway

22

Graduate Education

Work

4 Year Selective Institutions

4 Yr  
OAI

18

Upper Div'n  
(AP, IB, ACT,  
CTE, A Levels)

Add'l time  
to meet  
Comps.

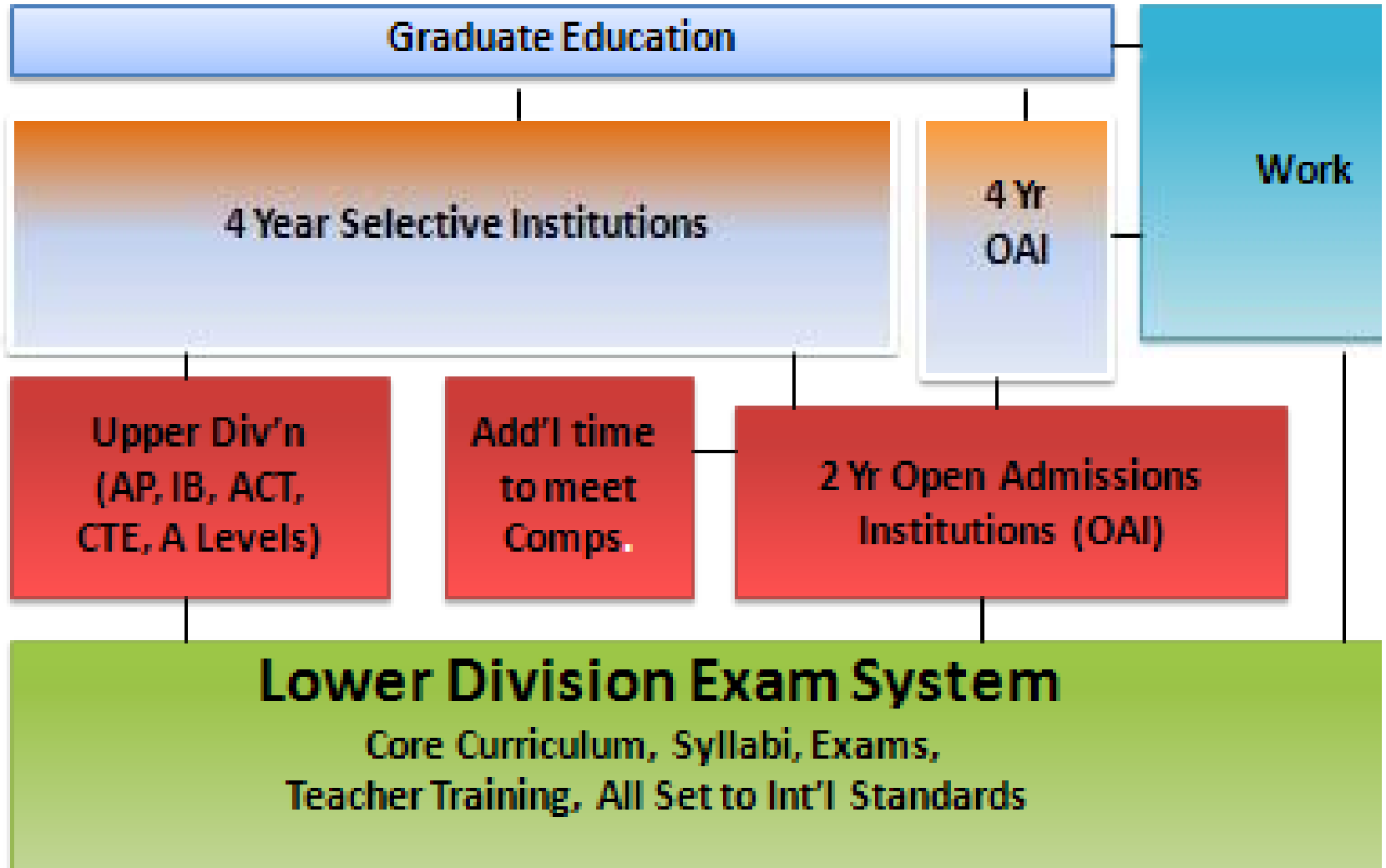
2 Yr Open Admissions  
Institutions (OAI)

16

**Lower Division Exam System**

Core Curriculum, Syllabi, Exams,  
Teacher Training, All Set to Int'l Standards

14



## **National Center on Education and the Economy Consortium on Board Examination Systems**

### **Frequently Asked Questions**

1. **What is a board examination system?**

Board Examination Systems (BES) are comprehensive programs of study used by the world's highest performing countries in their high schools. These are powerful, coherent, fully aligned instructional systems made up of course syllabi, instructional materials, exams and teacher training. By using Board Examination Systems, schools can greatly increase the proportion of high school students who leave high school ready to do college-level work and therefore succeed in college. Research shows that in addition to employing high-quality teachers, Board Examination Systems are the key strategy that leading countries use to ensure high performance from all of their students and access to multiple pathways to further education for students who successfully complete the coursework and examinations.

2. **What is the National Center on Education and the Economy's role in bringing the world's best Board Examination Systems to U.S. high schools?**

Since 1989, The National Center on Education and the Economy (NCEE), a not-for-profit organization based in Washington, DC, has been studying those countries whose students typically outperform all others in international comparisons of academic achievement. NCEE long ago discovered that most such countries use some variation on board examination systems, and the use of these systems is a principal reason for their success. In the winter of 2010, NCEE formed a consortium of states and districts to conduct a large-scale pilot demonstration of the use of board examination systems and their effect on student achievement. The pilot will begin in fall 2011.

3. **What is the Board Examination System program?**

NCEE is currently identifying and certifying world-class board examination system providers to offer their programs in the participating states and districts. Some of these programs are designed for use in the lower division of high school (freshman and sophomore year) and others are designed for use in the upper division (junior and senior year). Participating high schools must offer at least one certified lower division program to their lower division students, who volunteer to participate in the program. Schools can also choose to offer upper division BES programs for students who pass their lower division examinations and to all students with an interest in a more rigorous upper division curriculum than might otherwise be available. Students will pursue a core educational program in English, mathematics, history/social studies, the sciences, and the arts. Each participating state, district, or school may include additional requirements.

Students who take the full set of lower division BES core courses and pass the

examinations for those courses will be awarded a high school diploma when they have done so. Participating states, districts, and schools will ensure that the examinations for the lower division Board Examination System programs are offered to students by the end of their sophomore year. The project's Technical Advisory Committee (TAC) will set college-ready cut scores for the lower division English and mathematics examinations at the literacy level needed to be successful in the first credit-bearing courses in open-admissions 2-year and 4-year colleges. When students reach the college-ready standard in English and mathematics and pass all of their other lower division exams, they must be able, if they choose to do so, to qualify for admission, the following fall, to the state's open-admissions colleges without having to take remedial courses. Taking advantage of this move-on-when-ready opportunity will be voluntary for each student who meets the lower division diploma requirements, but its availability cannot be voluntary for participating schools.

Alternatively, students who meet the college-ready requirements on their board examinations at the end of their sophomore year can choose to stay in high school to pursue an upper division program or another rigorous college ready curriculum of study. Students who take an upper division Board Examination System program would typically do so to prepare for admission to a selective college or university.

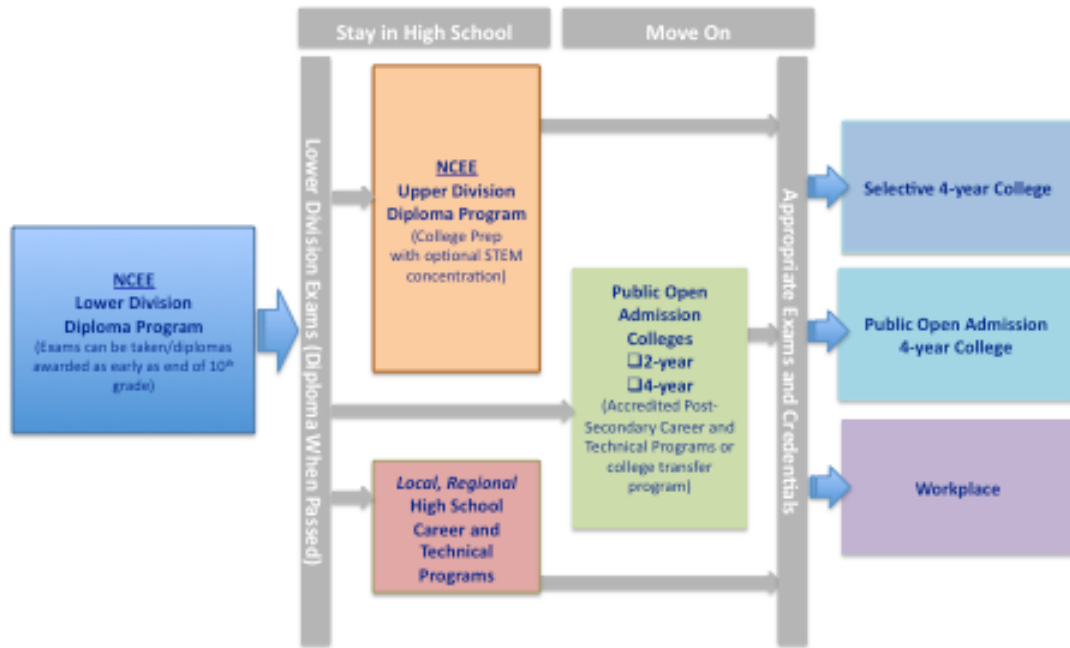
Participating high schools will do their best to offer students who enter high school unprepared for the rigor of the lower division Board Examination System programs assistance designed to provide the extra help they need to succeed in such programs. If the assistance is limited to a few topics in a few subjects, that help will be offered concurrently with the Board Examination System program in that student's freshman year. If, however, the student arrives at high school two years or more behind in English and mathematics, that student will not begin the lower division program until that student's sophomore year, and the freshman year will be devoted to a program intended to prepare that student for success in the Board Examination System program.

If students do not reach the college-ready standard on their Board Examinations in their first attempt, their high school will receive student sub-scores on the examinations and will prepare a program of study focused on those subjects in which the student did not do well. Students can retake the exams as often as the exams are offered (in some cases in both the Winter and the Spring). The aim is to enable virtually all students participating in the BES program, to meet college-ready requirements before they leave high school.

BOARD EXAMINATION SYSTEMS

DIPLOMA PROGRAMS

Oct



4. **Which states are currently participating in the BES pilot?**

Schools in Arizona, Connecticut, Kentucky, Maine, Massachusetts, Mississippi, New Hampshire, New Mexico, New York, and Vermont have expressed strong interest in participating in the pilot. Top state officials in all these states are encouraging their schools to participate. School recruitment is ongoing in these states and others.

5. **How is the BES project funded?**

Funding has included a \$1.5 million planning grant from the Bill & Melinda Gates Foundation (which ended in September 2010); an additional \$3.2 million over two years from the Bill & Melinda Gates Foundation (ending in June 2012) to support research and the evaluation; and \$1.8 million from the NCEE Board to fund technical assistance and research. Participating states, districts and schools are using funds from federal grant programs (e.g., School Improvement Grants, Title II, Title I, Title I Part G, Advanced Placement Programs, or Title V-A Innovative Programs) and seeking funds from local and state philanthropies. Some states and districts are using state and local tax dollars to fund part of the program as well.

6. **How would students benefit from this system?**

Standards and tests by themselves do not change what goes on in classrooms. Only when standards are translated into effective curriculum – with well-designed syllabi, high-quality instructional materials derived from the syllabi, and training for teachers that is closely tied to the design of the courses they will be responsible for teaching – can teachers and students receive the support needed to reach the standards. This is especially true for at-risk students, who are even more dependent on the quality of the curriculum and instruction than other students. In short, research shows that students will benefit from this system because it is one of the most powerful tools available at the high school level to improve student performance.

**7. How would the proposed system fit into a state's accountability program and the recently approved Common Core State Standards?**

Providers of the board examinations are required to ensure that their offerings are compatible with the mathematics and English Common Core State Standards, and other Common Core State Standards as they become available.

The proposed board examination system is not meant to replace a state's accountability system; at the outset, it is intended to be voluntary for the students participating in it. States may petition the US Department of Education to allow students who meet the college-ready standard on these board examinations to be exempt from additional accountability testing. A state *could* also design an accountability program around the data that will be produced by the proposed board examination system.

**8. Are you describing yet another kind of tracking system, designed to sort students out in a way that will open opportunities to some and deny them to others?**

Board Examination Systems are the antithesis of a tracking system. Tracking systems assign students to programs of different challenge levels based on someone's estimate of their ability. When a student has been assigned to a lower track program, that student is given a program in which he or she will learn less than students assigned to higher track programs. After a few years in such programs, the options available to students in the higher track programs are not available to lower track students, because they have been denied access to the curriculum that might have prepared them for those opportunities. Thus lower track students systematically are denied the choices available to upper track students.

The Board Examination System does just the opposite. It is designed to enable all students to meet the college-ready standard on their lower division examinations. All students have the same options once they meet the standard on the lower division exams. They can enter community college, where they can enter either a four-year college transfer program or a career and technical program. They can enter the high school upper division Board Examination System programs and prepare themselves for admission to selective colleges. They can enter a high school career and technical education BES program that can lead to college, work or both. All of these options are open to all students who have met the college-ready standard and passed their other lower division examinations.

**9. Why are you proposing a lower division and an upper division program? Why not just one program for all students that ends at the end of the senior year and produces a range of grades?**

Most national education systems end the common program for all students at the end of the year in which a student turns 16. After that, students pursue different educational, career, and technical paths. Prior to that point, all students are expected to complete a common curriculum. There is no reason for United States students to take an additional two years to get to the same place as their international peers. This wastes an enormous amount of money and the time of teachers and students alike. The purpose of Board Examination Systems is not to attempt to cram four years of

high school into two years, but rather to use rigorous curricula that are designed to help as many students as possible learn what they need to know in order to be successful in open-enrollment colleges or to prepare for selective colleges and universities.

**10. How would our approach to BES differ from that of other countries?**

Some other countries use the exams that come at the end of the sophomore year to sort students out according to their grades on the exams. These students are not allowed to take the exams again, so their grades determine the course of the rest of their lives. In contrast, NCEE's BES design allows students to take the exams as often as they wish, with help to improve their chances of passing each time. This design, then, is intended to get all students over the same finish line, having met the same high standards, ready for college and the workplace. This design is tailored to America's educational and workforce needs and American values.

**11. Will students really go off to college at age 16?**

A number of possibilities exist for students completing the lower division board examination program. For instance, many high schools already offer community college courses on their campuses and/or send students to a community college site for credit-bearing courses (dual credit and early college high school are two current models). Students could take advantage of these courses as well as courses available on community college campuses, online, or via distance learning. Some students may be more interested in taking all of their courses on a community college campus. As increasing numbers of students move on early, it may be that classrooms they would otherwise have been occupied in their high schools will empty and become available for community or technical college courses. And of course, many students who successfully complete the lower division board examination program will choose to remain in high school and spend their next two years in an upper division board examination system program.

**12. How will we ensure that teachers are prepared to teach these courses?**

Teachers of these courses will be provided with three years of high-quality professional development to teach the new courses, high-quality curriculum to guide their teaching, and high-quality instructional materials. Research shows that these are the most effective measures that can be taken to improve the effectiveness of teaching.

**13. What is the cost of these programs?**

Schools and districts will purchase the necessary materials and services from the program providers from a purchasing schedule maintained by their state's purchasing department. That state will in turn be taking advantage of a purchasing schedule developed by the Commonwealth of Kentucky. Kentucky is currently working with NCEE to conduct a competitive procurement process leading first to the certification of approved program providers and then to the negotiation of prices for the products and services to be provided by each provider. Program costs will be a function of the prices set in that negotiating process. While we will not know what price breaks BES providers might offer the participating states, districts, and schools for another few

months, we built a budget for the four-year demonstration program based on the following key assumptions:

- Participating students will take five BES courses each year; and each course will require instructional materials costing roughly \$35 for each student.
- Participating teachers will receive three years of professional development at an average cost of \$850 per teacher per year..
- Participating students will take an external examination at the end of the one-year or two-year courses, depending on the provider and the subject. Each exam costs on average \$50.
- On average, 30% of the students in each demonstration school will choose to participate and, initially, 50% of them will meet the English and mathematics standards at the end of the sophomore year, allowing them to either move on to an open-enrollment college or remain in an upper division high school program. And, of those eligible to move-on after their sophomore year, 30% will initially choose to do so. Over time, we assume that more students will enter high school prepared to participate in the lower division BES, and that as more post-secondary options become available, more students would leave high school having passed their lower division board examinations at the end of their sophomore year.
- Using average national enrollment data showing that 65 students would be approximately 30% of the 9<sup>th</sup> grade enrollment, the cost per school would be \$32,000 for the initial pilot year. These estimates do not include the cost of substitute teachers hired to cover for teachers in training, planning time, special programs designed to prepare less-well-prepared high school freshmen for the board examination programs or programs specially designed to help prepare students for their second or third attempts at the examinations. The schools offering these programs will be expected to cover these costs.

The following chart provides estimates of the pilot costs for a single school that begins with just a 9th grade cohort of students and then adds another cohort and grade each year. Built into these cost projections is the assumption that the participation rate will grow a bit each year and that no one will leave the program until they have the option to move on following their sophomore year. In short, actual costs may be somewhat lower than these conservative estimates.

**BOARD EXAMINATION SYSTEM PROJECTED START-UP COSTS**

	<u>Planning Year</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>
<b><u>Exam Fees</u></b>				
(\$50/student/5 Course)				
9th Graders		\$16,275	\$18,988	\$21,700
10th Graders		\$-	\$16,275	\$18,988
11th Graders		\$-	\$-	\$15,543
12th Graders		\$-	\$-	\$-
<b><u>Teacher Training</u></b>				
(\$850/teacher)				
9th grade teachers		\$4,250	\$4,250	\$4,250
10th grade teachers		\$-	\$4,250	\$4,250
11th grade teachers		\$-	\$-	\$4,250
12th grade teachers		\$-	\$-	\$-
<b><u>Student &amp; Teacher Materials</u></b>				
(\$35/student/5 Courses)				
9th grade		\$11,393	\$13,291	\$15,190
10th grade		\$-	\$11,393	\$13,291
11th grade		\$-	\$-	\$10,880
12th grade		\$-	\$-	\$-
<b><u>Core School Level Costs</u></b>		<b>\$31,918</b>	<b>\$68,446</b>	<b>\$108,341</b>

- 14. Some students enter high school two or more years behind grade level. Others may be close to grade level, but far behind in particular topics. And some students are English language learners (ELLs) or students with disabilities (SWD). What will be done for these students?**

Overall, it will be a local decision to select the board examination system provider that best meets the needs of a given high school student body. Each provider has been asked, as part of the board examination certification process, to indicate the services, materials, and offerings it would provide to help teachers meet the needs of students who may not be at grade level when entering high school, as well as those who may not pass a lower division examination the first time they take one. In addition, the providers have been asked to offer accommodations for ELLs and SWD in accordance with the law. High schools should examine the supplementary programs, technical assistance and professional development available at the middle school and lower division levels and select the board examination system provider they want to work with based, in part, on this analysis.

- 15. You are proposing a giant change in long-established policies and practices. Are you expecting high schools to convert to this new system all at once?**

There is no expectation that an immediate, wholesale change will occur in participating states. However, across the participating sites we will conduct a multi-year pilot program, in at least 40 high schools, that is linked to a rigorous independent evaluation of effectiveness. The participating schools should be representative of the student population and geographic regions of the state as a whole. All participating states, districts, schools and BES providers are committed to piloting the program and participating in the evaluation.

- 16. Why would a state join NCEE to do this? Why not just purchase these programs directly from a provider?**

All of the board examination programs that respond to the RFP are available today and could be purchased directly from the providers. However, states participating in the pilot project with NCEE will benefit from the consortium's buying power. Furthermore, NCEE is conducting substantial technical work such as certifying the examination system providers, setting the pass points on the English and mathematics examinations to an empirically determined college-ready standard, and assessing the reliability and validity of the exams. These financial and technical benefits only will be available to Consortium states.

- 17. How will we know whether or not the BES system works?**

A third-party, independent evaluation will measure the difference this program makes in achievement and other key outcomes for the students who participate in the program. It will evaluate the Board Examination Systems programs' impact on student achievement, student motivation and college attendance. A team of researchers from the Institute for Social Research (ISR) at the University of Michigan, led by Professor Brian Rowan, will conduct the evaluation of demonstration high schools in the program.

We will pilot this program in at least 40 high schools, including those that serve high concentrations of high need students, representing at least 10 states. We expect to share preliminary data in September 2012 and formal findings in September 2014.

**18. How will the technical aspects of aligning curricula and establishing valid and reliable assessments be ensured?**

The research plan is focused on three central objectives: assuring that the assessments meet prevailing professional standards for fairness, reliability and validity; determining that each examination system is compatible with the Common Core State Standards and roughly comparable to each other; and establishing a defensible and empirically supported set of performance criteria for college readiness in mathematics and English literacy, and then setting cut scores for each examination relative to these criteria.

This work is being overseen by a Technical Advisory Committee composed of some of the most distinguished psychometricians, cognitive scientists and literacy experts in the world. The TAC is chaired by Howard Everson of the City University of New York and Jim Pellegrino of the University of Illinois at Chicago. They are joined by Lloyd Bond of Carnegie Foundation for the Advancement of Teaching, Phil Daro of America's Choice, Richard Duran of the University of California-Santa Barbara, Ed Haertel of Stanford, Joan Herman of the Center for Research on Evaluation, Standards, and Student Testing (CRESST) at UCLA, Bob Linn of the University of Colorado, Catherine Snow of Harvard and Dylan Wiliam of the University of London.