PIONEER INSTITUTE
PUBLIC POLICY RESEARCH

Core Academic Knowledge*

with **E.D. Hirsch,** *professor emeritus*, *University of Virginia*
& **Thomas Birmingham,**
former President, Massachusetts State Senate

PRESIDENT THOMAS BIRMINGHAM: Thank you for being here today and caring enough about this important and timely issue. I'm here as the warm up act to the main event; here to introduce Professor E.D. Hirsch and to provide some Massachusetts context to our ongoing discussion about the nature and level of expectations to which we can appropriately hold our public school students.

MCAS did not cause the achievement gap.
It shone the light on the racial and class-based disparity in academic attainment that pre-education reform tolerated and condoned.

Professor Hirsch is the nation's preeminent scholar in the area of standards and knowledge-based learning. His empirical approach illuminates a debate that too often generates more heat than light. Before his career as a curriculum expert, E.D. Hirsch was an English professor and his area of specialization was the Romantic poets. So, I thought you [Professor Hirsch] might be interested in this event in my own life.

I spent three years at Exeter College in Oxford, studying English language and literature. When I arrived at Oxford, my two professors – or dons – were named, respectively, Wordsworth and Byron. And I thought, "Here is this green Yank at Oxford and the Brits are going to put me up to this

---

E.D. Hirsch, emeritus professor of education and humanities at the University of Virginia, is the author of numerous books, including *The Knowledge Deficit*. Hirsch is founder and chairman of the nonprofit Core Knowledge Foundation, which has helped reshape the curriculum in hundreds of schools around the country. He has been elected to the American Academy of Arts and Sciences and the International Academy of Education, and is the recipient of numerous honorary degrees and awards, including the AFT's 1997 QuEST award.

Thomas Birmingham is Senior Counsel with Edwards Angell Palmer & Dodge. In 1991 Mr. Birmingham was elected to the Massachusetts State Senate, where he served as co-chair of the Joint Committee on Education. He was one of the architects of the landmark Education Reform Act. Mr. Birmingham later served as Chairman of the Senate Committee on Ways and Means and Senate President. Mr. Birmingham is a Rhodes Scholar.

*This event was held December 16, 2008 in conjunction with:

MassINC
RESEARCH. JOURNALISM. CIVIC LIFE.

Program on Education Policy and Governance

TRANSCRIPT

Center for School Reform

March 2009

and say, 'Would you believe the bleeding colonial thought Wordsworth and Byron were going to teach him English literature?'" But, point of fact, Jonathan Wordsworth was a lineal descendent of the poet William Wordsworth, and incestuously enough, was a Wordsworth scholar. And Byron just happened to be the other's name.

It is rare I go so far off-script so early in my remarks. As a literary critic, Professor Hirsch argued that the author's intent must be the ultimate determinant of the meaning of a literary text. That is a standard I would like to apply to the interpretation of the Education Reform Act. In the late 1970s, Professor Hirsch's career took a new and highly public turn as he elaborated the theory of cultural literacy. The basic idea is that reading comprehension requires not just decoding skills but substantial background knowledge.

Spending disparities resulted in qualitative discrepancies in public education in Massachusetts. Those differences were replicated with regard to the standards and the knowledge we expected students to have.

The concept of cultural literacy has important and immediate implications for the curriculum taught in our public schools. For starters, the curriculum must be knowledge-based. One might be surprised at how controversial this proposition is. Indeed, here in Massachusetts, that very issue is at the core of the debate over the nature and the role of MCAS in the Education Reform Act.

Let me take a brief look back to 1992, before education reform, and then on to a very brief discussion of the issue *du jour* with regard to standards and a knowledge-based curriculum. In 1992, due to what, in my mind, was over reliance on the local property tax, we witnessed the grossest disparities in our spending on our public schools. In some communities we were spending $3,000 per child per year; in others we were spending $10,000 per child per year.

In those circumstances, to pretend that we were affording our kids anything remotely approaching equal educational opportunities was nothing short of fraudulent. In 1992, the spending disparities resulted in vast qualitative discrepancies in what actually constituted a public education in the Commonwealth of Massachusetts. Those differences were replicated with regard to the issues of standards and the knowledge we expected students to have.

Our set of standards was as unacceptable as our school finance structure. Before the passage of the Education Reform Act, there were two state imposed requirements to receive a diploma in the Commonwealth of Massachusetts: one year of American history and four years of gym. This was certainly more a tribute to the lobbying prowess of gym teachers than to any coherent pedagogical theory. But the absence of a comprehensive statewide system of standards imposed real hardships on poor and minority school districts, which were not only under-funded but also afflicted with society's low expectations as to what their kids could learn.

Poor school districts routinely practiced social promotion, advancing children year in and year out with no regard for academic performance until they eventually graduated, sometimes unable to read their own diplomas. I mean this literally. All too frequently, in my hometown of Chelsea, I witnessed the presentation of high school diplomas to students whose future children had to be placed in bilingual education because their parents, graduates of an American high school in Massachusetts, could not speak English. Talk about a failure of assimilation. Talk about a failure of communication. Talk about a failure of transmission of knowledge.

The Education Reform Act changed all of this. The law is a very complicated piece of legislation containing many innovations and changes to the then status quo. But for all of its multifaceted complexity, the core of the Education Reform Act can be reduced to two straightforward principles. First, a massive infusion of state dollars into our public schools, and second, a demand for high standards and accountability from all involved in the education process. This is the "Grand Bargain" that is education reform in Massachusetts. In policy and political terms, it was a good bargain.

Politically, if K–12 education appropriations had increased without reform, the bill would not have passed, nor should it have. If high standards and accountability were insisted upon without increasing material resources, the proposal would not have

commanded majority support, nor should it have. I believe it is because we have remained faithful to these two core principles that our education reform has achieved the success it has, and we have enjoyed some very impressive accomplishments.

If you had told me on that hot June day in 1993, at the Home School in Malden where we signed the Education Reform Act, that over 90 percent of the students would pass the MCAS the first time it was a graduation requirement, I would have thought you wildly optimistic. But it's not just the MCAS. There have also been significant advances in SAT scores, and in 2005, our 4th and 8th graders finished first on the NAEP (National Assessment of Educational Progress) test, the so-called "Nation's Report Card," in the tested subjects of math and English.

In 2007, our 4th and 8th graders aced both tests again, leading every other state in the nation.

No state had ever led the country in both grades in both subjects in the history of the test. In 2007, our 4th and 8th graders aced both tests again, leading every other state in the nation. Most recently, we received wonderful news about our students' performance on TIMSS (the Trends in International Math and Science Study). Massachusetts 4th graders ranked second in the world in science and fourth in math. Their counterparts in the 8th grade tied for first in the world in science and placed sixth in math.

There is reason to be justly proud of these outstanding performances. It is simply incontrovertible that our public schools are often getting it quite right. In these circumstances, any proposed change should respect the admonition, "First do no harm."

By citing these success stories, I am not counseling complacency. I remain deeply troubled by racial and class-based achievement gaps, which though reduced, still stubbornly persist. The opponents of objectively measurable standards try to blame MCAS for these differentials. MCAS did not cause the achievement gap. It simply shone the light on the racial and class-based disparity in academic attainment that pre-education reform unaccountably tolerated and condoned.

Professor Hirsch would go a step further in assessing the MCAS and its affirmative impact with regard to the achievement gap. Although we have miles to go before we sleep, standards-based education in Massachusetts has made great strides in the right direction. That is why I am discomfited by the direction in which the Readiness Project seems to be moving. I'm specifically worried about some of the proposals of the 21st Century Skills Task Force, which may threaten to dismantle the structure of our success and drive us back towards vague expectations and fuzzy standards. I, for one, am not ready for that.

By objecting to some of the 21st Century Skills Task Force recommendations, I am not suggesting that the Education Reform Act is perfect or that the MCAS itself is sacrosanct. To the contrary, it is unconscionable that this state has, for five years, failed to restore $40 million cut from MCAS remediation programs. I also believe that the interval between the taking of the test and the giving of results is unacceptable.

Massachusetts 4th graders ranked second in the world in science and fourth in math. Their counterparts in the 8th grade tied for first in the world in science and placed sixth in math.

But acknowledging that experience can teach us to reconsider and adapt components of education reform, does not mean automatically embracing change for change's sake, or acquiescing to proposals that may actually subvert advances already made. The Task Force would elevate concepts like "global awareness," "creative problem solving," and "oral presentation" to a new prominence in our school curriculum. Please make no mistake. To me, these are all consummations devoutly to be wished.

I'm all for high order thinking, but I would have thought it self evident that it is a precondition that you must first have something substantive to think about. I'm sure Professor Hirsch will have some profound things to say about this issue. What troubles me now is the thrust of some of the Task Force proposals, which run against the heretofore bedrock insistence on universal standards measured objectively. For instance, the Task Force explicitly recommends supplanting objective assessments with

subjective ones to partially determine satisfaction of the new history graduation requirement.

I fear that this may represent the proverbial camel's nose under the tent. If substantive assessments are valid for history, why not for math or English as well? Moreover, we are told, largely by people who were not members of the Great and General Court in 1993, that this shift from objective measurements is what the legislature had intended all along when it passed the Education Reform Act.

Some of the proposals of the 21st Century Skills Task Force may threaten to dismantle the structure of our success and drive us back towards vague expectations and fuzzy standards.

With regard to intent, I will not presume to speak of what others where thinking when they voted for the Education Reform Act. But I did help write the Education Reform Act and I can speak of authorial intent. That's why I like it so much when Professor Hirsch, in his interpretive work, accords primacy to what the author thought he was doing.

The entreaty to return to subjective assessment may constitute an invitation to return to the days of racially and class-based expectations that, pre-ed reform, condemned so many poor kids to inferior educations.

In 1993, I had in mind an assessment system resembling what is now the MCAS. The law I wrote provides the test should be, and I quote, "criterion referenced, assessing whether the students are meeting the academic standards set forth in the act. The assessment system shall provide students with the means to compare student performance among the various school systems and communities in the Commonwealth." This was my effort to express that we were establishing a standard of general applicability, subject to objective measurements. At that time, I told anybody who asked that that was my intent.

I fear the entreaty to return to subjective assessment in place of objective ones may constitute an invitation to return to the days of racially and class-based expectations that, pre-ed reform, condemned so many poor kids to inferior educations. As a political matter, the success of education reform is broadly enough acknowledged to make it practically unlikely to forge an explicit, frontal assault on standards and knowledge-based education.

I worry about a soft subversion of objective assessments, a watering down of clear expectations with vague aspirations. To me, some of the recommendations of the 21st Century Skills Task Force tend to move in this direction. Tellingly, some of the proponents of this shift have been antipathetic to MCAS or any form of objective measurement from the beginning. To repeat myself, MCAS is not perfect or sacrosanct. It is, however, working to bring all of our kids to meaningful levels of education. I have mentioned areas where we may improve the preparation for and the application of MCAS. So I don't say, "If it ain't broke, don't fix it." But I do say, "If it ain't broke, don't break it."

I worry about a soft subversion of objective assessments, a watering down of clear expectations with vague aspirations.

Now, we're to the stage that brought you all here; to hear the remarks and insights of E.D. Hirsch. Professor Hirsch's approach is not anecdotal but rather scientific and data driven. His conclusions flow so logically from the empirical material he presents that I regard his findings as all but indisputable. He will tell us what he believes we must defend in education reform and will suggest ways to improve on it. Professor Hirsch, I welcome you to Boston and to the podium. I look forward with great anticipation to your presentation.

PROFESSOR E.D. HIRSCH: I'm so glad to be introduced by one of the makers of reform here in Massachusetts. It's a true honor. Massachusetts is a bellwether. I should tell you I am not altogether a "carpetbagger" from Virginia. I have five grandchildren that have gone through or been in the public school system in Massachusetts. Three of them are currently in the public schools of Massachusetts; one in 7th grade, one in 3rd grade and one in kindergarten. What you do here is significant, particularly for the kindergartener. I have an existential concern.

My other reason for a deep interest in Massachusetts public education is that this state has the best chance to lead the other 49 states out of the wilderness that we, as a country, have wandered into.

Today, when you compare American 15 year-olds to those in other nations on a combined measure of math, reading and science achievement, we are in the bottom quartile. It's important to combine these subjects in a single view, especially reading, as I will explain later. Making these international comparisons with 15 year-olds is also a good idea, because students at that age stand at the end of the elementary school years, and their achievements at that point highly determine their later academic future. I completely agree with that view about the critical importance of the elementary grades. Those grades will be my focus in this talk.

Here is a daunting fact about America's ranking. Our relative international standing used to be much higher. In 1978, we were seventh out of 17 countries in science. Then a downward trend set in. Ten years later, in 1988, we dropped from seventh to 15th, approximately where we are today. Other countries have improved, but that is not the whole story. We have, in absolute terms, declined.

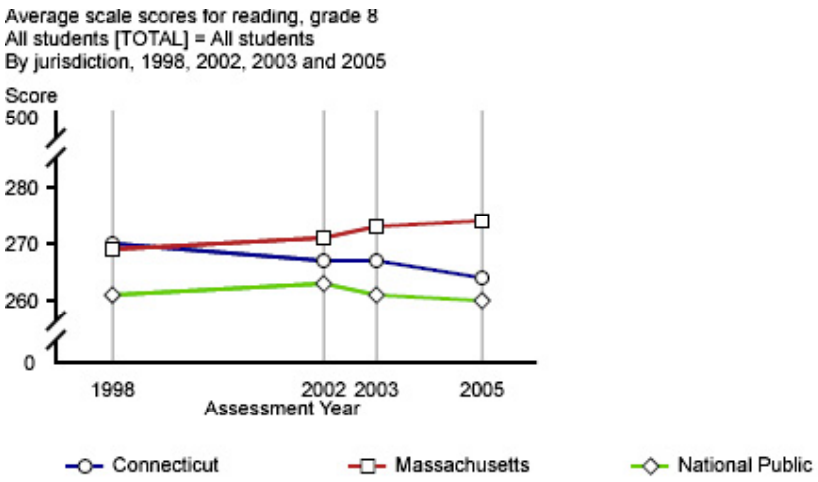
There was the famous drop in SAT national reading scores. Math is beginning to improve, but the signs are less promising in reading. Since 1999, there has been a slight upturn in reading in 4th grade, a steady pace for age 13 and a slight decline recently at age 17. The explanation for that is that mechanical skills have improved in 4th grade reading and the reading tests are mainly tests of fluency and accuracy of decoding. When comprehension begins in grade eight and grade 12, we've declined.

[As shown in Figure 1], the national pattern on 8th grade reading from 1998 to 2005 has declined. (See line marked with diamonds.)

Those are the dates between which Massachusetts implemented the MCAS. Between those two dates, Massachusetts had the best record of reading improvement. Not just the best end results, but also the best record of reading improvement of any state in the country. (Massachusetts is the line marked with squares.)

However, for your neighbor to the south, Connecticut, in that same period, there is quite a significant contrast. (Connecticut is the line with circles.) Connecticut may have started out scoring a tiny bit higher than Massachusetts in 1998, but the chart shows Connecticut doing its best to descend to the national average in reading.

Figure 1: 8th Grade Reading, National, MA, CT



The NAEP Reading scale ranges 0 to 500.
U.S. DOE, IES, NCES, NAEP, 1998, 2002, 2003 and 2005 Reading Assessments.

What inference should we draw from this? It should be, "Let's avoid what Connecticut was doing and let's try to improve what Massachusetts was doing in the interval."

I want to say a bit about the actual tests on which these data are based before returning to the MCAS tests specifically and how they might be made more fair and effective. When people launch complaints about soulless, high-stakes tests they are often referring to reading tests. Yet there could scarcely be more valid and reliable instruments of measurement and accountability than these tests.

Massachusetts had the best end results and the best record of improvement of any state in the country.

The standard reading tests, including the Armed Forces Qualifying Test, the NAEP, and MCAS, as well as the national reading tests like the Stanford, the Iowa, and the Gates-MacGinitie correlate well with one another and with real-world abilities. In short, the standard short reading tests, like the MCAS, are reliable, valid and predictive. The scores correlate probability of economic success, the probability of adaptability to retraining – which is a 21st century skill – the probability of civic integration, even the probability of non-incarceration. The reason we know about these correlations is that a great deal of sociological work has been done with scores on the Armed Forces Qualifying Test (AFQT).

Standardized reading test scores correlate with probability of economic success, retraining, civic integration and even non-incarceration.

Ron Ferguson at Harvard and William Johnson in my own institution, an economist, have done a lot of work on closing the economic gap and the achievement gap of races and other demographic classes. There is a very high correlation between actual, on-the-job success and economic success with scores on the AFQT. The AFQT is a combined MCAS, as it were. It is a reading and a math test all at once, testing reading, math and general knowledge.

Their work demonstrates a high correlation with high skill, very demanding jobs and the score on the reading test. Being able to achieve a high score on these reading tests is very much a skill-related acquisition. These correlations can easily be explained. Reading scores correlate with both language proficiency and general knowledge. Without effective language and communication skills it's hard to hold a good job, or retrain for a new one; it's hard to be fully integrated into the wider society. That is a fast rundown of the reasons for the correlations between scores on a fill-in-the-bubble reading test and general social, civic, and economic competence for the 21st century.

All reading tests are basically the same, here or anywhere else. You have a passage and you have multiple choice questions about what the passage meant. They're reliable, in the sense that a score on one of them is similar to a score on another version of the test. They are also valid. They are testing the very skill they are proposing to test, namely, "Do you understand what you read?"

If the tests in Massachusetts and Connecticut are the same, but the scores are different, what is it about the situation in Massachusetts and Connecticut that has determined this difference? I would say it is the Education Reform Act of Massachusetts, the teacher training and standards and the tests that went with them. In other words, Connecticut didn't have what Massachusetts had. The two states had the same tests but not the same kinds of standards. The differences in the performance of the two states most likely reflect differences in the teacher, training, and state standards that determine how schools are encouraged to prepare for these tests. I had occasion to visit Connecticut in the period 1998-2005, and I used to see TV ads by the Connecticut Education Department praising the "hands-on", project orientation and group activity that was being encouraged by the state.

Let's avoid what Connecticut was doing and let's try to improve what Massachusetts was doing in the interval.

Moreover, the Connecticut standards took the view that critical thinking and problem solving were more important than mere content. Here (p. 7) is a typical curriculum standard from Connecticut.

Now, suppose you are a teacher who has to decide on a syllabus, or you are a test-maker who has to choose passages and make test items. A teacher would

CONNECTICUT SAMPLE
Standard 1: Reading and Responding
Overarching Idea: Students read, comprehend and respond in individual, literal, critical and evaluative ways to literary, informational and persuasive texts in multimedia formats.
Guiding question: How do we understand what we read?
Component Statements:
· Students use appropriate strategies before, during and after reading in order to construct meaning.
· Students interpret, analyze and evaluate text in order to extend understanding and appreciation.
· Students select and apply strategies to facilitate word recognition and develop vocabulary in order to comprehend text.
· Students communicate with others to create interpretations of written, oral and visual texts.

conclude from this standard that the actual material to be taught is less important than the teaching of these "appropriate strategies." By the same token, a test maker would infer that the topics of the passages on the test are less important than the way the multiple-choice items probe a mastery of strategies such as questioning the author and finding the main idea. You will invariably see main-idea items on these tests – even in Massachusetts.

The pity here, and this is very relevant to the 21st Century Skills Report, is that the Connecticut standards imply a "how-to" conception of reading as being a skill rather like typing, in which proficiency is to be gained by practice in using conscious strategies such as questioning the author, and finding the main idea. These are supposed to develop skills like critical thinking and creativity that are said to be more important than mere information. There are many scientific flaws in this "how-to" conception.

By contrast, the English language arts standard from Massachusetts (above right) shows a better balance between strategies and substantive knowledge.

As a teacher or curriculum maker I would find this standard something that I can build lesson plans around. As a test maker, I could, if I were very conscientious, find passages and test items that reflected these more definite guidelines, including, for example, passages from *Aesop's Fables*. Such

MASSACHUSETTS SAMPLE
Standard 10: Genre
Overarching Idea: Students will identify, analyze, and apply knowledge of the characteristics of different genres.
Task: Identify the characteristics of various genres (for example, poetry, informational and expository nonfiction, dramatic literature, fiction, subgenres of fiction such as mystery, adventure, historical, or contemporary realistic novels and short stories).
Grades PreK-2:
· *Mother Goose Nursery Rhymes*
· *Aesop's Fables*
· *Selected Grimm Fairy Tales*

guidelines encourage more predictable test content, as well as more coherent and substantive teaching.

I said that these tests are similar. They are reliable, valid and predictive of real-world abilities. But people have been very uneasy, and I think understandably so, about the kind of "fill-in-the-bubble test" that is the MCAS. But since the tests are valid and reliable, perhaps it is not the tests that are at fault for the bad educational uses that they have been put to. I'm thinking of the kind of test preparation drills that go on in some less enlightened schools, where instead of teaching history, science and literature, people are drilling kids on how to take these tests. This is true across the country.

The downside is that preparing for the reading comprehension tests has, in fact, in Massachusetts and elsewhere in the country, reduced class time spent on history, science and the arts.

Since the tests are valid and reliable, perhaps it is not the tests that are at fault for the bad educational uses that they have been put to.

Critics say that schools have been turned into skills-factories in which history, science, literature, and the other arts have gone out the window. I agree with these critics. In many schools time being wasted on test preparation at the expense of coherent substance has caused test scores in reading paradoxically to decline.

But it's not the reading tests that deserve complaint. Rather it's the mistaken how-to conception of reading

that has distorted preparation for these tests in our schools. Massachusetts has bucked the downward trend because its educational reformers did not fully buy into the "how-to" conception of reading, writing, and critical thinking.

Because of its superior standards, teacher testing and tests, in Massachusetts this narrowing of the curriculum has been less pronounced than elsewhere.

For the rest of this talk, I am going to suggest ways in which Massachusetts could strengthen its enlightened, knowledge-based conception of reading and writing, and enhance the numerous attainments and skills that correlate with reading and writing. What can Massachusetts do to push still farther ahead in the communication and learning skills that the recent 21st Century Skills Report rightly emphasized?

Massachusetts has bucked the downward trend because its educational reformers did not fully buy into the "how-to" conception of reading, writing, and critical thinking.

How do we create a test regimen that is valid and reliable, but, as the late great test theorist Samuel Messick called it, "consequentially valid" in that it encourages good educational practice? How do we ensure that teaching to the test is a good thing—that it provides children with a first-rate education?

First let me amplify my point that reading comprehension and other communication skills are not chiefly "how-to" skills, as Connecticut assumed. That mistaken conception has failed to yield results in Connecticut and elsewhere. Scores went down in Connecticut and other states because their educational leaders had committed an intellectual and scientific error with regard to reading and other academic skills. Massachusetts scores went up because their leaders were less captivated by the content-indifferent conception. The first step in correcting the error is to understand that reading is not a generalized skill.

Reading may seem to be a generalized skill. Well-educated people are able to read all sorts of things. But that's because they are well educated, which is to say they possess wide knowledge. Psychologists say that there is a secret about acing a reading test. The hidden skill in acing a reading test is to know crucial things about the topic of the passages on the test that are not explicitly stated in the passages themselves. Psychologists call this "domain specific" background knowledge. Almost all of my own work in education has been a footnote to that insight about language and background knowledge, which psychology began to 'thematize' back in the 1960s.

Reading comprehension and other communication skills are not chiefly "how-to" skills, as Connecticut assumed. That mistaken conception has failed to yield results in Connecticut and elsewhere.

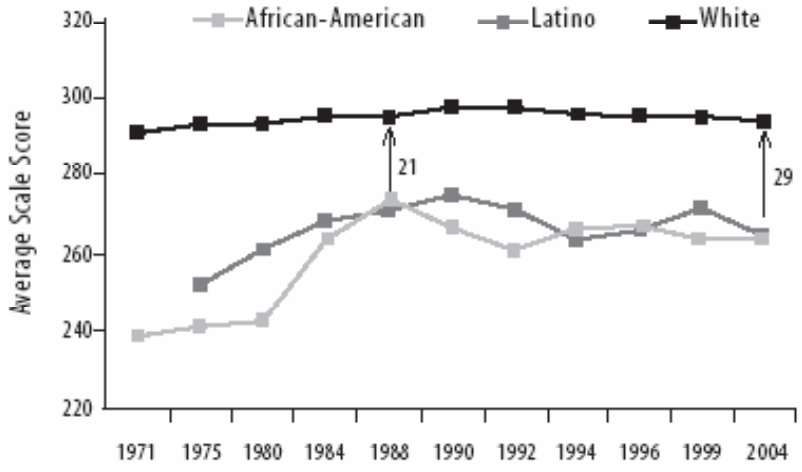
Even though we call some people good readers, it is not because there is such a thing as good reading skills. It is because they have broad, general knowledge. Reading skill is the ability to read about baseball, the ability to read about the Civil War, and the ability to read about various different topics because you know something about the topic ahead of time.

Not just any diverse knowledge will do. In a community the shared, taken-for-granted knowledge is finite in extent. In the United States in the 21st century, the knowledge that is most useful and foundational for reading, learning, and communicating can be roughly determined and taught in our schools. It's our duty to give teachers and schools useful guidance about what that specific enabling knowledge is. Massachusetts has offered such specificity to some extent, and if it wants to make further progress it will make content standards even more specific and coherent. There is strong evidence that such a policy will not only raise achievement in general, but will also narrow the gaps between demographic groups.

The test score gap on the NAEP reading test is mainly a knowledge gap—the skills gap is mainly a knowledge gap.

Here's a disheartening graphic (Figure 2) showing the reading gap between demographic groups, which is of course also a communication gap and a learning gap.

Figure 2: NAEP Reading, 17 Year-Olds



NCES, NAEP 2004 Trends in Academic Progress

You can infer from my preceding remarks that the test-score gap on the NAEP reading test is mainly a knowledge gap—that *the skills gap is mainly a knowledge gap.*

It is unfair to disadvantaged students who take one of these generalized reading tests that implicitly probe all kinds of knowledge. The tests cover stories and things that everyone supposedly knows, but they happen not to know these things because they haven't been taught these things.

For advantaged students, much enabling knowledge is gained outside of school. That's why there is a gap to start with. But that's the whole point of striving for equal educational opportunity in our schools. If, beginning in preschool and kindergarten, a school effectively imparts enabling knowledge over a period of years, then advantaged students will perform better than before, and disadvantaged students will narrow the gap. The gap will not be erased, but it will be reduced. Here's a remarkable fact: the achievement gap is narrowed wherever there is a strong, coherent focus on building knowledge in the early grades. By abandoning the "how-to" conception of communication skills, and adopting a knowledge-based conception we can explain that remarkable fact of the universal correlation between a coherent knowledge-based curriculum and the narrowing of the gap.

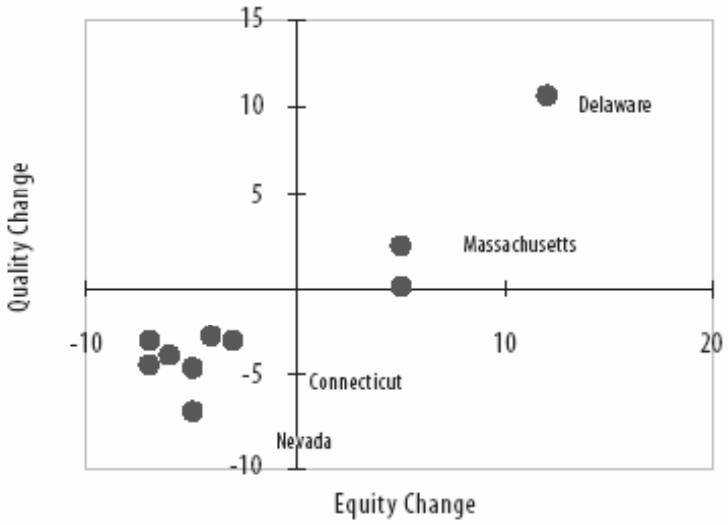
There is a strong correlation between overall quality of education and equity. When 8th-grade reading scores go up, the achievement gap between demographic groups narrows. In general, there is a positive correlation between the equity of a school system and its academic quality.

The reason for this correlation can be explained in fine-grained classroom detail. And while I do not have time to do that here, I have done it elsewhere (see "Narrowing the Two Achievement Gaps" at http://coreknowledge.org/CK/about/articles/NarrowingGaps.htm).

It will be gratifying for you to know that by emphasizing content and raising its reading scores Massachusetts has made a dent in the achievement gap. According to NAEP, only three states between 1998 and 2005 showed a significant rise in eighth-grade reading scores. They were Delaware, Massachusetts, and Wyoming.

Seven states that declined significantly in reading scores are: Connecticut, West Virginia, New Mexico, Arizona, Nevada, North Carolina, and Rhode Island. Through the magic of NAEP's data tracker, we can create a scatter chart to see whether states that raised average verbal scores also narrowed the gap between the 25th and the 75th percentiles of students. It will also show whether states that declined in reading *increased* the gap between the 25th and 75th

Figure 3: Quality Change and Equity Change



percentiles. The answer is emphatically yes to both predictions.

You can see in the scatter graph (Figure 3) that there is a near-perfect correlation between significant gain or loss in 8th-grade reading and a narrowing or widening of the gap. Delaware gained the most and narrowed the most, but was not the leader in absolute terms. Since Delaware had much farther to go, it still lags behind Massachusetts in absolute terms in both achievement and equity. If you are a disadvantaged parent with a school-age child, Massachusetts is currently the state to move to.

There is a strong correlation between overall quality of education and equity. When 8th-grade reading scores go up, the achievement gap between demographic groups narrows.

This correlation between higher average reading scores and gap narrowing is confirmed also in international studies. The highest achieving nations have narrowed the achievement gap the most. This scatter graph shows an incontestable correlation between a gain in reading comprehension and a gain in equity.

There are significant policy implications in this for Massachusetts. If you raise reading comprehension for the whole school population you will also narrow the gap between groups. I had predicted this result on purely theoretical grounds, and its confirmation strongly supports the view that I have outlined here.

But progress in communication skills and gap narrowing cannot happen overnight. The cumulative build-up of knowledge and its accompanying vocabulary is a slow process that needs to start in preschool. Truly significant results cannot possibly be obtained quickly even under ideal conditions.

This leads me to my basic recommendations for how Massachusetts can build on and strengthen the good work it has begun. First it should state with greater specificity the grade-by-grade core content in science, history and the arts that the schools should teach, especially in grades three to six. Second, it should base its reading and writing tests, especially in the early grades, directly on that year-by-year content in all subjects.

If you are a disadvantaged parent with a school-age child, Massachusetts is currently the state to move to.

To make the MCAS induce more effective education, I suggest that if the curriculum standards call for the students to learn about electricity, atoms, chemical elements, the symphony orchestra, Islamic art and architecture, mountains and mountain ranges, feudalism, the Norman Conquest, the French and Indian War, the American Revolution, and Norse

myths, the teachers be informed in advance that the reading test will be made up of passages based on three or four of these topics. They would therefore have an incentive to teach all of them. They would not want to waste much time practicing strategies. They would be likely to get better results by teaching these interesting and substantive topics.

To build on the good work it has begun, Massachusetts should state, with greater specificity, grade-by-grade content in science, history and the arts.

By basing the high stakes reading tests on the actual subjects that the students are to be taught in the schools, the tests will actively encourage the teaching of history, science, literature and the arts, and, since reading comprehension is knowledge based, this policy will, in turn, raise real-world reading abilities for all students.

The idea of setting a core of definite grade-by-grade topics is the most contentious hot-button issue in the field. But that is a feature of our recent educational history–going back only to the 1930s. In the 19th century when Massachusetts and New York and Connecticut were pioneering the common school, commonality of content was a major component of their idea of what the common school should be.

The anti-set-curriculum principle is a recent, semi-theological doctrine in the education world. It contradicts our founding traditions in education.

There is nothing essentially American about taking a highly individualistic approach to school content. The anti-set-curriculum principle is a recent, semi-theological doctrine in the education world. It contradicts our founding traditions in education. As I have tried to indicate, we will not make real progress until we transcend both the anti-set-curriculum prejudice and the how-to theory of skills that supports it.

If Massachusetts will bite that bullet, it will forge even farther ahead, and become a model for the revival of public education in the nation.

Which in conclusion returns me to my title: "How to Ace the MCAS, or How Massachusetts can forge even farther ahead of the other states." Acing the MCAS has a double meaning. By making the reading tests curriculum-based in core subject matters, we would create a system that will actually enable our students to ace the test, and make faster progress in both achievement and equity. But it also means that policy makers would ace the test, by making it more consequentially valid.

If Massachusetts did that, it would benefit its own citizens and it would provide leadership for the rest of the country. Thank you.

85 Devonshire Street, 8th Floor, Boston, MA 02109 | T: 617.723.2277 F: 617.723.1880 | www.pioneerinstitute.org