

Narrowing the Two Achievement Gaps

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by E. D. Hirsch, Jr.

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I am grateful to the Education Trust for inviting me to give this talk. It's an honor and a kind of homecoming. We at Core Knowledge feel great affinity with The Education Trust with its focus on narrowing the unfair achievement gap between groups. That injustice was my reason for leaving academic pursuits and entering education reform in the 1970s.

I won't distract you with the intricate details of my experiments on literacy some 35 years ago beyond observing that they were first done at UVA, and then at a mainly African-American college in Richmond. I described the results in two technical publications that are virtually unknown. But they have colored all of my subsequent work. Anyone who bothers to read those reports might be surprised to discover that it was empirical science and not ideology that originated *Cultural Literacy* and the Core Knowledge movement. The ideological controversies surrounding *Cultural Literacy* during the 1980s and '90s were gripping but, to my dazed mind, essentially off point. For, the key educational issues we faced urgently both then and now are less connected with ideology than with empirical reality.

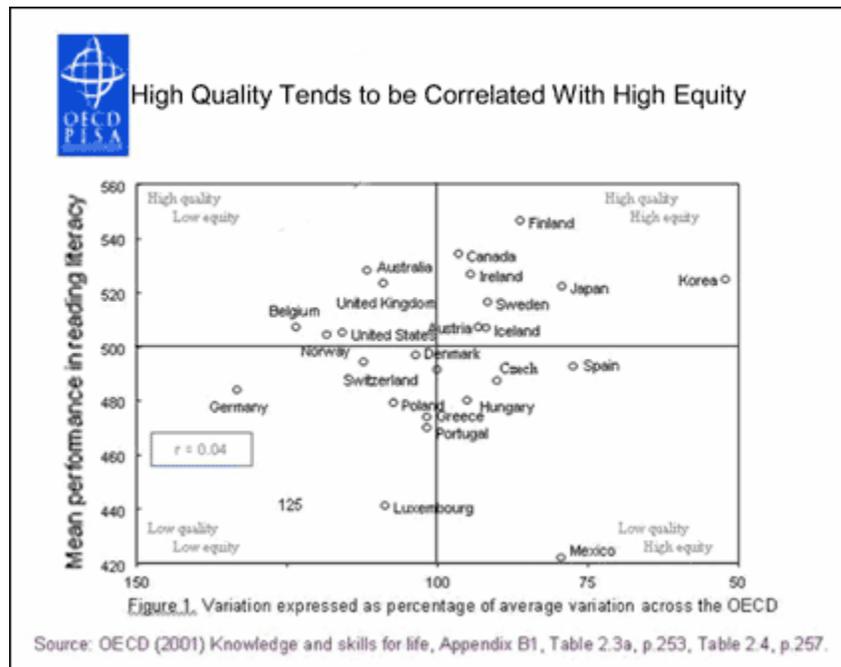
I'll very briefly describe the discovery that shocked me into education reform. The African-American students at the Richmond college (It was the Sargeant Reynolds Community College.) could read just as well as UVA students when the topic was roommates or car traffic, but they could not read passages about Lee's surrender to Grant. Their performance on that particular text shook me up the most. For they had graduated from the schools of Richmond, the erstwhile capital of the Confederacy, but were ignorant of the most elementary facts about the Civil War and other basic information that is normally taken for granted in writing. They had not been taught the various things that they needed to know to understand ordinary texts addressed to a general audience. The results were shocking. (What *had* the schools been doing??). I decided to devote myself to helping right the wrong that is being done to such students.

Let me explain my title: "Narrowing the *Two* Achievement Gaps." The sort of gap usually meant by the phrase "achievement gap" is the one between whites and African Americans or whites and Hispanics, or more generally between high- and low- income students. Let's call this "the fairness gap." But there is an equally fateful achievement gap between our students and those in other developed nations. Let's call this "the quality gap." My first theme in this talk is that these are not separate problems. The solution to the fairness gap is also the solution to the quality gap, and vice versa.

I will focus on the verbal achievement gap, which is critical to academic performance, later income, and general competence. I want to show that if we raise the average verbal achievement for all groups of students we will, by that very deed, also narrow the fairness gap, killing two birds with one stone.

There were already inklings of a correlation between educational quality and gap closing in the famous Coleman report of 1966, called *Equality of Educational Opportunity*, in which Coleman and his colleagues showed that good schools had a greater positive effect on *disadvantaged* students than they had on advantaged ones. Really good schools, he showed, are inherently compensatory. According to his massive data, a school that achieves higher scores for advantaged students also narrows the fairness gap for disadvantaged students. So much emphasis has been placed on Coleman's finding about the importance of family-background that this correlation between school quality and social equity has been widely overlooked.

We can see further evidence for the quality/equity correlation in recent international studies. The OECD, the organization of developed nations, has issued a report showing that those nations which achieve the highest verbal scores are also the ones that most effectively narrow the verbal gap between groups of students.

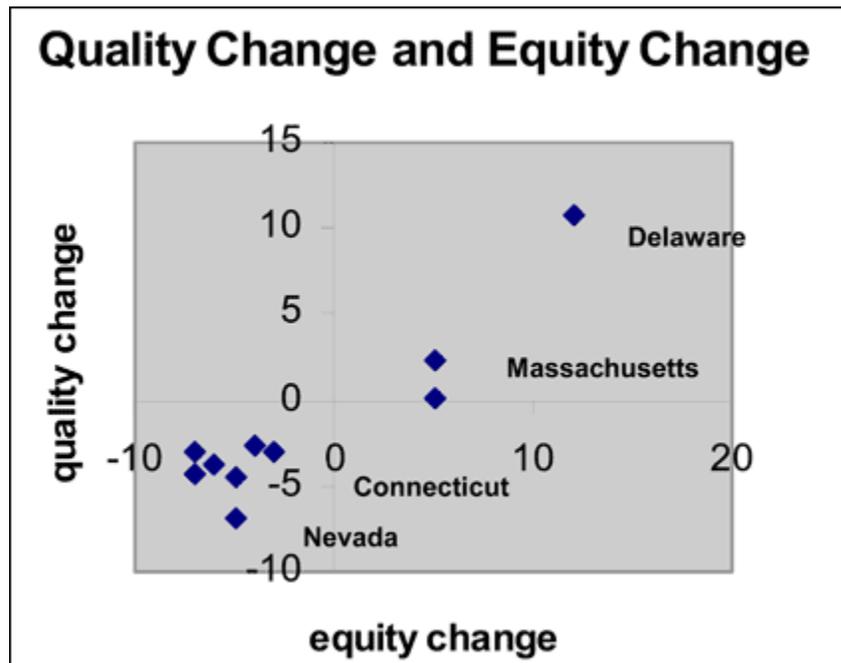


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In this chart, gap-narrowing is measured from left to right, and verbal scores from bottom to top. You will see that the best-performing nations, Finland, Canada, Ireland, Korea, Japan, and Sweden not only score high verbally but also score well — off to the right — in reducing the gap between schools and between students within schools. Low scorers like Germany and Luxembourg tend to be shifted to the left. The USA is in the middle in average verbal scores, and in left field with regard to equity. There are some interesting exceptions to the overall pattern, but the general trend is from bottom left to top right. Lower-scoring nations tend to offer less equal educational opportunity, and high-scoring nations tend to offer more.

But let's quickly leave international comparisons. They are unpersuasive to the majority of Americans, who say that these other nations are not truly comparable to the United States — our apples being unlike their oranges. I had the following thought. Why not look at individual states *within* the United States, and *not* compare the states directly to each other, since that would lead to the same apples-oranges objection. Why not compare each state to itself by looking at its NAEP reading scores, first in 1998 and then in 2005 to see whether a rise in quality also produced a rise in equity.

Now, according to NAEP, only 10 states showed *any* significant change in eighth-grade reading scores between 1998 and 2005. Three of them rose significantly — Delaware, Massachusetts, and Wyoming. And seven showed significant verbal decline: Connecticut, West Virginia, New Mexico, Arizona, Nevada, North Carolina, and Rhode Island. So, let's see whether the states that raised average verbal scores also narrowed the achievement gap between the 25th and the 75th percentiles of students. And let's also see whether states that declined increased the gap between the 25th and 75th percentiles. The answer is an emphatic "yes" to both questions.



A statistical analysis of this quality/equity nexus shows a .92 correlation and a probability to the .0001 level — a near certainty — that there is been a non-random connection between a rise in quality and a rise in equity.

These are sensational results supported by a number of further statistical analyses. Delaware seems to be on top, because it changed most. But while it can be very proud of itself, it did start from a very low point in 1998. The hero of the chart is Massachusetts which rose from being in the mid-top range of states to being at the very top in absolute verbal scores — without neglecting low-end students. Massachusetts can of course do better on both metrics, as can all the states. But, right now, if you are poor, or black, or Hispanic and have a school-age child, the state to be in is Massachusetts, where both the average reading scores and also the scores of the lower-percentile students are higher than those of any other state. Coleman’s finding of a connection between quality and equity is thus clearly reconfirmed both among the OECD nations *and* within the various states.

I want to spend most of this talk explaining why a narrowing of the quality gap also narrows the fairness gap. And I want to show that *any* school can narrow these two gaps. Once the underlying principles are understood, adequate yearly progress for all groups becomes less impossible as an achievement.

From my empirical research I understood the underlying reasons for the quality/equity correlation. That’s why I went searching in the NAEP data to compare the states — confidently predicting what the outcome would be, and when the scatter plot showed a .92 quality-equity correlation I was gratified but not surprised. Now I want to spend a few minutes explaining the nitty-gritty reasons for these large-scale results at the level of the individual student.

Most people in education policy and research know the work of Betty Hart and Todd Risley in their book *Meaningful Differences*. They showed that toddlers in low-income homes tend to hear fewer words and simpler sentences than higher-income children. They come to school with much smaller verbal repertoires than high-income children do. In other studies, Keith Stanovich and his colleagues have shown why this early gap often increases with subsequent schooling. His term “The Matthew Effect” comes from the Gospel of Matthew: “For whosoever hath, to him shall be given, and he shall have more abundance: but whosoever hath not, from him shall be taken away even that he hath.”

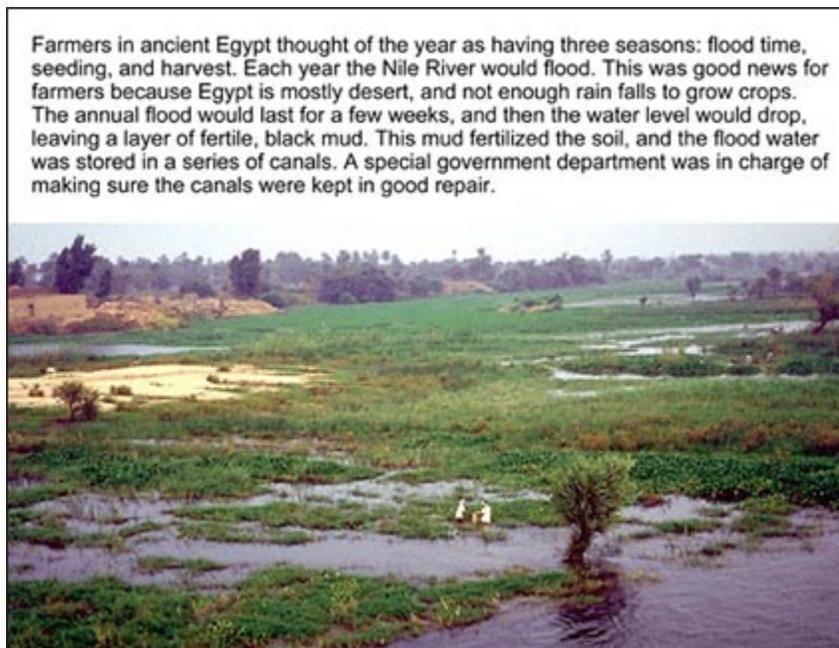
One simple illustration of this Matthew Effect is vocabulary. Vocabulary researchers estimate, as a rough average, that a person needs to know about 90 percent of the words in a passage in order to make sense of it. The rich get richer in vocabulary and the poor get poorer, because a prior knowledge of key words enables advantaged children to learn still more and more new words from a given discourse, while students who are ignorant of its overall verbal context are hindered in learning anything new from it.

Now let's picture a classroom where the more fortunate students know at least 90 per cent of the words being used by a teacher, enabling them to gain knowledge about the other 10 percent of words that they did not already know. At the same time, the students who did *not* already know 90 per cent of the words would be mystified by what the teacher said, and would fall still further behind. In such a case exposure to the very same discourse in a classroom causes the rich to get richer and the poor poorer. They feel left out and discouraged, and are likely to tune out and create discipline problems. For such students the verbal gap tends to grow ever larger as they go through school. That is the Matthew Effect.

But according to NAEP scores, that is not what happens on average to disadvantaged students in the United States. The gap between groups does not grow significantly larger as they go through the grades. Rather, according to NAEP, the verbal gap starts out large and remains more or less the same from 4th through 12th grade. So, currently our schools seem to be having a null effect on fairness — which means we are doing better than Germany, Poland, or Luxembourg which have a negative effect that causes the gap to grow larger. Our null result might have been predicted from our midpoint, null position on the quality/equity scatter chart of the OECD. In the United States, we don't do much to foster either quality or equity. But we can also see from these results that the Matthew Effect is not inevitable. Some entire national systems and some individual American schools have overcome it. How did they do this?

To understand the mechanism we need to make one small change in the picture offered by the path-breaking work of Hart and Risley and Stanovich. Their discussions are centered on language. But language is only part of the story in determining verbal achievement. The family interactions that Hart and Risley observed over many weeks and months were not just verbal in nature. They were also referential; they referred to things and people in the world. If a toddler is being told the difference between a wooden toy and a plastic toy, it's not just the two words "wooden" and "plastic" that are being learned, but also things about the world. Language is not a purely enclosed system. It's a tool we use to name, describe and understand physical, social, and psychological realities. Advantaged children experience not only richer vocabularies and syntax but also more of what language refers to. This was implicitly understood by Hart, Risley, and Stanovich, but it's a point that needs to be amplified, because it holds a key to why some schools and some whole national systems have been able to narrow the verbal gap.

Let's consider a second -grade classroom to see in detail how it's done. Let's say the class is discussing farming and the Nile River. Here's a passage for children that I lifted from the internet.



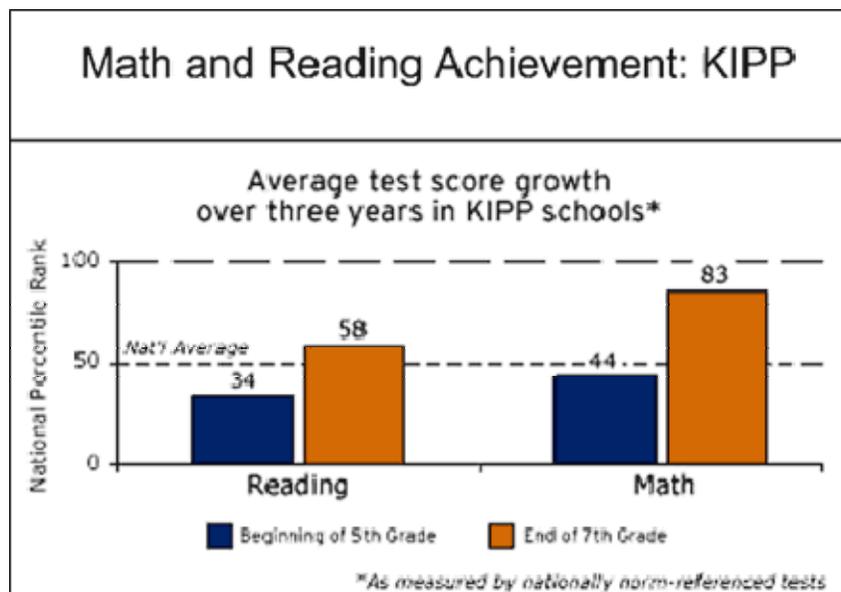
Suppose that is read aloud to the students. Let's pretend that everyone in the class is already slightly familiar with Egypt, with the Nile, and farming, so that the passage makes *some* degree of sense to everybody in the class. This is a hugely important assumption about background knowledge that I will discuss in a moment.

Let's also suppose that the *advantaged* children in the classroom also know two words that disadvantaged children do not know — say, the word “annual” and the word “fertile.” But all the students know enough to get the gist of the passage.

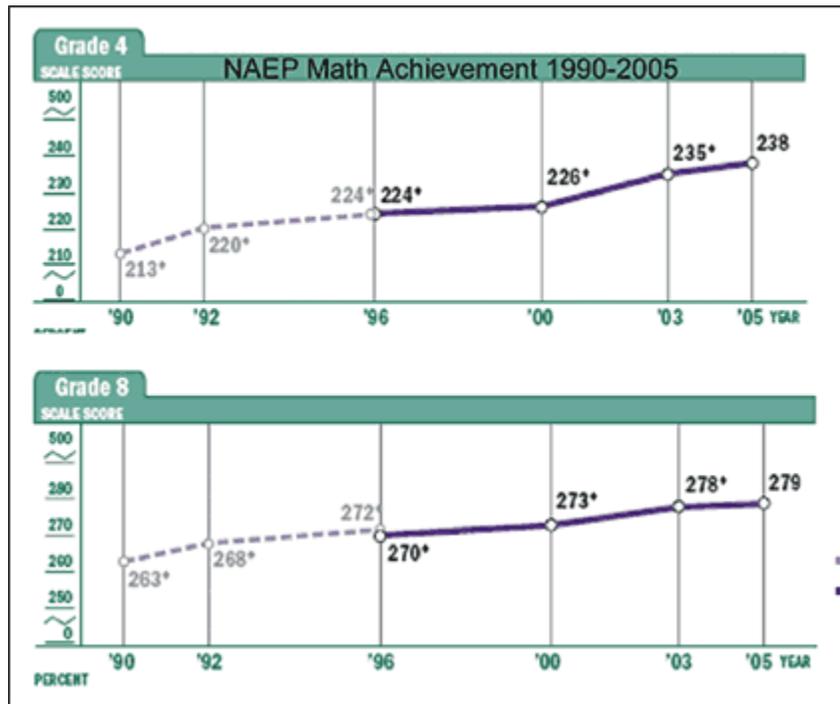
In this snapshot, we witness a tiny bit of gap narrowing. Here's why. When all the children in the class understand the gist of the discourse, they are able to make fairly accurate, if vague, guesses about the meanings of all the words. Both advantaged and disadvantaged children begin to get a better handle on the subject matter. At the same time, disadvantaged students are also making gains in understanding the words “annual” and “fertile,” gains that advantaged students are *not* making, because they already knew those two words. Under these conditions, disadvantaged children will learn even more than advantaged ones from the same discourse. A little bit of verbal catching up has occurred because those who started behind have learned a tiny bit more about language than those who already knew those two words “annual” and “fertile.” This illustrates the basic mechanism of gap narrowing at, so to speak, the molecular level. The have-nots have gained what the haves already had. This could be called the “anti-Matthew effect.”

But notice how tiny the catching up was in this example, and how very slow word learning is for all children, advantaged or disadvantaged. It takes many exposures to a word to gain a confident sense of its potential connotations. The slow cumulateness of vocabulary growth cannot be over-emphasized. Tiny changes build up very gradually over many years. Don't be misled by the frequently-repeated statement that young children learn 15 new words a day. That's not precisely what happens. Progress in verbal ability occurs with glacial slowness along a broad front. Children learn a tiny bit each day about hundreds of words, and what they learn in any given school year may be almost imperceptible. The accretive process takes place over several years. The gains that occur in an individual class may be so small and so latent as to be un-measurable. (No wonder short-term educational assessment is so hard!) It's only when a child reaches high-school or college age, and has acquired many thousands of words, that researchers can divide that large number by the number of days the student has lived since age two. That's how we come up with the somewhat misleading number of 15-words a day.

The slow cumulateness of verbal growth explains why verbal scores have proved so much less malleable than math scores, which are far more quickly responsive to school interventions — even when verbal interventions are as highly intensive as in the admirable KIPP schools. In the latest KIPP annual report, one finds this chart on the opening page showing average test score growth over three years:



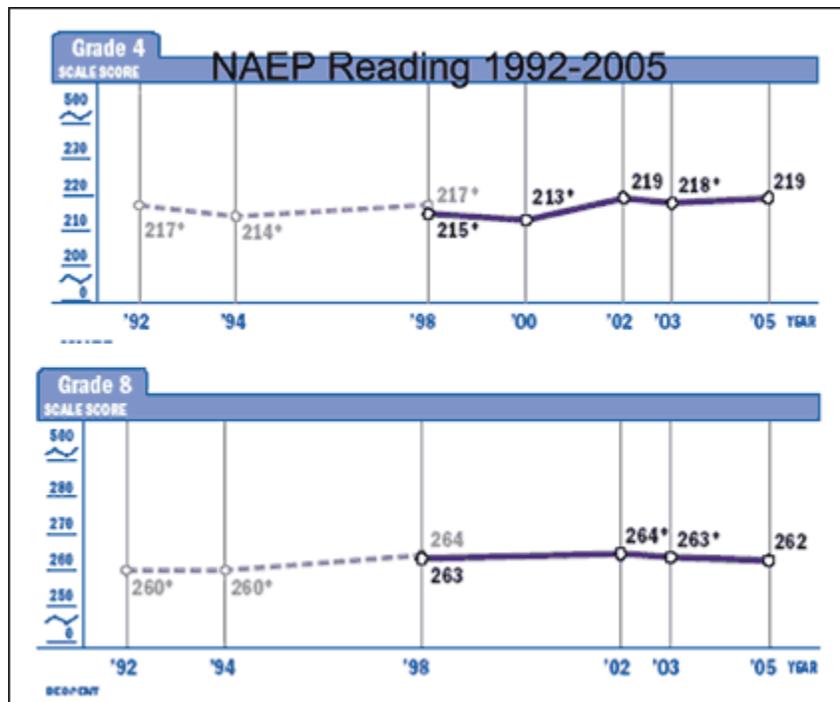
And we see a similar pattern in the large scale NAEP scores, where math has proved to be more amenable to intensive study than reading has. Here is the NAEP pattern in math:



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Notice that scores are rising in both grade 4 and grade 8.

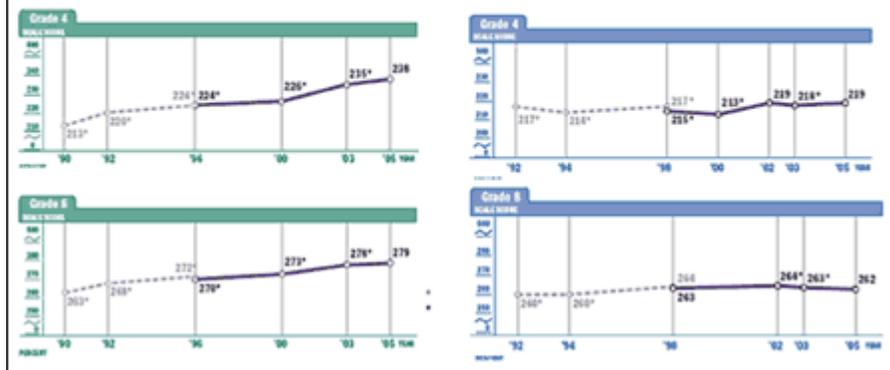
But a very different pattern occurs in NAEP verbal scores:



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Not only is the gain very slight and level in grade 4, but it is *not* followed by a comparable gain 4 years later in grade 8. This contrast is striking if we show the math and reading patterns side by side:

NAEP Reading and Math



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Why don't the grade-8 scores in reading follow the same path as the grade-4 scores in reading? It's because the term "reading" is a very misleading way of describing what is actually being measured here. We tend to think that once the mechanics of reading are mastered, reading improvements follow a normal path simply by virtue of students having more and more reading experiences. That's a partial truth. But the 4th-grade and 8th-grade tests are fundamentally different. What's being measured on the NAEP 4th-grade test is demanding with respect to mechanical skill, but undemanding with respect to the general knowledge needed for mature comprehension. But what's being tested on the grade 8 test is far more challenging with respect to general knowledge, as was well demonstrated by Joseph Torgesen and his colleagues. The thing that is *chiefly* lacking in our eighth graders (and this harks all the way back to my empirical work of the 1970s) is not decoding skill, but general knowledge and vocabulary.

The knowledge-building process I described in the little classroom scene about Egypt is the *only* underlying process that has been proposed for describing how verbal gap-narrowing occurs in untracked classes. It can only work if the learning preconditions are present for *all* the children in a class. For all students to understand the general sense of the Nile passage they all had to have been taught essential preparatory facts about Egypt and farming. They all had to know that Egypt was a country in olden times, that the year has seasons, that farming depends on planting seeds in moist soil, and that plants need nutrients and water to grow.

We can't just assume that children will have naturally absorbed this preparatory knowledge. The school had to insure in advance that students were familiar with the basic processes of farming, and knew enough history and geography to make sense of the words "desert," "Ancient Egypt" and "the Nile." The ground for understanding just that one Egypt lesson had to have been carefully prepared by a whole series of earlier lessons. We are led willy-nilly to the conclusion that the *only* reliable way to improve verbal scores for all children, advantaged and disadvantaged alike, is to prepare them all for understanding classroom discourse by cumulatively building up the background knowledge they need to understand each day's classroom discourse. Without such advance preparation, some of the students will remain mystified and the dread Matthew Effect will come into play.

The benefits of coherent and cumulative knowledge preparation accrue to advantaged students as much as to disadvantaged ones. Everyone in a classroom benefits if all have the background knowledge needed to understand the gist of classroom discourse. The class moves forward in an absorbing way, and all students make gains. School time is used more productively. Achievement is higher, *and* the fairness gap is narrowed. That, in a nutshell, is the basis for the quality-equity nexus. Progress is made by all students, only when the groundwork has been carefully laid to make classroom topics familiar to all. The late great Harold Stevenson once observed that the chief problem in American education is not diversity of income, race and ethnicity, but diversity of preparation.

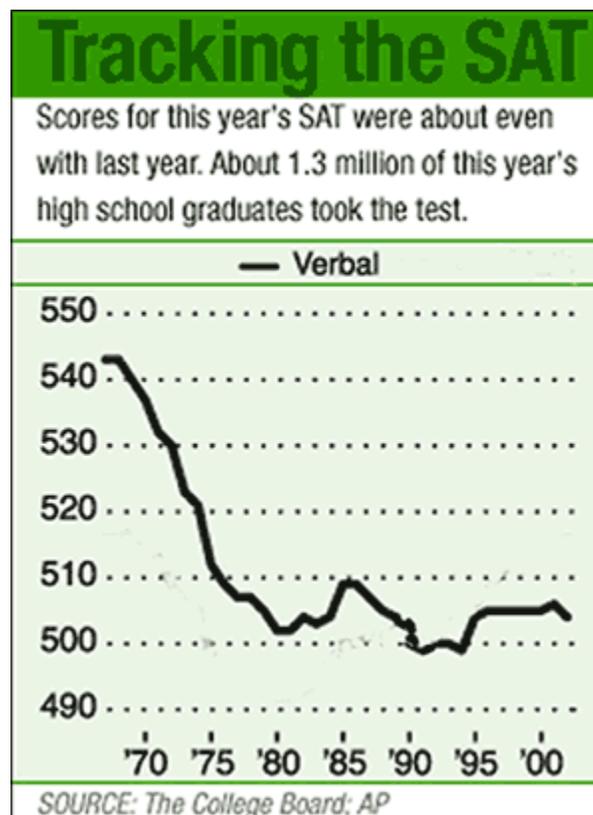
Many of you will quickly see where this analysis is taking me, because you know that I have long been an advocate of a common core curriculum for all students. But I hope you will understand that my preference for a

shared core curriculum is not the origin of the analysis. It is the other way round. The nature of verbal growth is the basis for my advocacy of a core curriculum. A carefully sequenced core curriculum is the *only* known way of insuring that all the students in a classroom will be sufficiently familiar with the context of classroom discourse to be able to learn new words and things from it.

Now we are in a position to see why Finland, and, in our own country, Massachusetts have racked up high scores on the fairness plus quality metric. Finland has instituted a specific core curriculum that comprises about 60 percent of the whole curriculum, leaving the other 40 percent to the localities. School tests are based on this core curriculum. Of all the states in the nation, Massachusetts has come closest to that pattern. It has fairly specific knowledge guidelines, and has instituted challenging tests — the MCAS — which genuinely follow the guidelines. There is a great deal of room for improvement in the Massachusetts guidelines and tests, but their basic structure, and the seriousness with which that structure has been realized under strong leadership over the past decade have caused Massachusetts to rise to the top in both quality and fairness.

Now to my last theme. Despite the success of reforms in Massachusetts, there is still political pressure there to weaken the content guidelines and the MCAS tests. This social and political fact is just as important to us in practical terms as the psycholinguistic facts I have just been analyzing. So I now want to turn to the historical reasons why the only method that has ever achieved high achievement and equity — that is, a common core curriculum with tests to match — has had such a very hard time in the United States. This not so much a change of subject as the *key* subject in practical terms, because unless we can overcome the historical and political barriers to acting upon what science and common sense have to say, we simply will not raise achievement and narrow the fairness gap.

Here is the recent history of the Verbal SAT.



You see that there was a sharp decline in the verbal abilities of American 12th graders from a peak in 1963 to a low point around 1980. Thereafter scores have remained rather flat. It is claimed that this precipitous drop in the 60s and 70s was due to an increase in the numbers of low-income students taking the SAT, but Christopher Jencks has shown that this explanation is inadequate. He cut to the nub when he observed that the state of Iowa, like the rest of the nation, *also* suffered a steep decline in verbal scores during the 1960s and 70s. Yet Iowa was 98 per cent white and 98 per cent middle class. So a sharp increase in the number of low-income test

takers couldn't explain why Iowa showed a big decline in verbal skills like every other state during the 1960s. Jencks showed by examples from textbooks that the chief cause was what had been happening in the nation's schools.

What *did* happen to school instruction that lowered American verbal scores in the 1960s and thereafter? To answer that we have to ask what was going on in the 1950s when the 12th graders whose achievement is reflected in this chart were going through school. What had happened to the schools was not so much an influx of low-income students as the coming to power of a new, post-World-War-II generation of educators trained in the anti-curriculum ideas of the 1930s, along with new textbooks reflecting that view. Several analyses have shown that textbooks were being greatly watered down in that era. This new point of view was called progressivism or constructivism, and its key feature was its vigorous opposition to a curriculum set up in advance — the very thing that, as I've been indicating, is necessary for quality and equity in verbal achievement.

Back in 1939, a brilliant scholar at Teachers College, Isaac Kandel, summarized what had been happening to his profession in the 20s and 30s when the progressive view came to dominate. He said this:

Rejecting ... emphasis on formal subject matter, the progressives began to worship at the altar of the child. Children [they said] should be allowed to grow in accordance with their needs and interests. ... Knowledge is valuable only as it is acquired in a real situation; the teacher must be present to provide the proper environment for experiencing but must not intervene except to guide and advise. There must, in fact, be "nothing fixed in advance" and subjects must not be "set-out-to-be-learned." . . . No reference was ever made to the curriculum or its content. . . . The full weight of the progressive attack is against subject matter and the planned organization of a curriculum in terms of subjects.
(Repeat last sentence)

Kandel went on to describe the ferocity with which this view was supported through ethical and political polemics. Back in the 30s, those who favored a definite core curriculum were called "*authoritarian*." They were inducers of passivity and docility rather than independent-mindedness. They claimed that under a definite curriculum "*Individual differences are disregarded, and promotion is determined by a standardized lockstep*." Proponents of a core curriculum were called "*reactionary in political and social affairs*" whereas progressive educators are "*radicals who advocate their educational theories and practices to reconstruct society and change the social order*."

Kandel made these observations in 1939, but I read them only a year or so ago, and was struck by its incisive and accurate account of the attack that my own views received from the education world 50 years later during in the 1980s and 90s. Kandel made me realize that few of the reasons marshaled in opposition to the Core Knowledge initiative are the *real* objections to it. It's not a weakening of local control, nor a claimed insensitivity to other cultures, nor a closing off of creativity, nor elitism, nor Eurocentrism. People who pronounce such complaints without having seen the Core Knowledge curriculum no doubt believe them. But they aren't the fundamental objections to Core Knowledge or to any other specific curriculum. Reading Kandel, made me realize that the more fundamental, usually hidden, issue is whether there should be *any* definite core curriculum at all.

If you doubt that *that's* the fundamental issue you can make a simple test: When you hear an objection against a definite content curriculum, say cultural insensitivity, or some vast vague need for global literacy, ask yourself whether it is followed up by any definite proposals for an alternative content curriculum. *This never happens*. For the *real* objection is to *any* definite core curriculum planned out in detail and in advance — the very thing that is most desperately needed to narrow the achievement gap.

The dominance of the anti-core-content idea explains why the state-standards movement controlled by the dominant view in state departments of education has been largely ineffectual in raising verbal scores. State language-arts standards contain lots of talk about process, but little or nothing about specific content. The very word "standards" is thus a convenient obfuscation. The public assumes that the word "standards" implies specific content. But the standards movement, with its great potential for progress, was hijacked by the anti-specific-content theology.

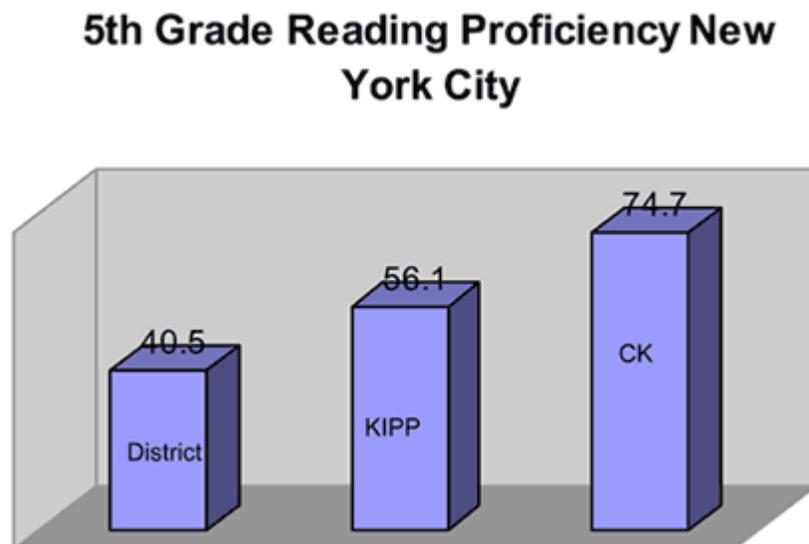
Finally, it is time to call a halt to this stubborn resistance to what our children need. We on the left as well as those on the right need to offer criticism and opposition to this anti-specific-content dogma, which has been in the saddle for 60 years and getting a free ride, partly because of the rhetorical bullying that Kandel pointed out. Its scientific poverty and intellectual incoherencies have produced only failure and unfairness. It is high time for people in academia, policy and philanthropy to start pointing this out and insisting that the possession of shared preparatory knowledge by all children in a classroom is the only effective means for raising achievement and narrowing the fairness gap. A core curriculum of 50 per cent leaves plenty of room for whatever other emphases a teacher or school might desire. It is the *only* way any large scale system has *ever* been able to achieved both quality and equity. Given the high mobility of our most disadvantaged students, we need to mount a challenge to the current dogma for the sake of the least advantaged among us, and for the country as a whole.

This logic will ultimately lead to a national core curriculum. But that's a long way off, and won't happen until our pragmatism and instinct for self-preservation have overcome our longstanding habits of thought. Meanwhile, in the short run, we need to do something right now in our schools. Every year we delay, hundreds of thousands of children are having their life chances curtailed.

Just a few weeks ago, the U S Dept of Education issued a report called *K-8 Charter Schools: Closing the Achievement Gap*, featuring seven schools from seven geographical regions. The fact that these happen to be charter schools is irrelevant. It's the curriculum. Two of them, unsurprisingly, were Core Knowledge Schools. As Karen Chenoweth has shown in her recent book: *It's Being Done*, we find gap-narrowing effects in non-charter, regular Core Knowledge schools that have been brave enough to resist the opprobrium of their fellow educators.

My aim in starting the Core Knowledge Foundation was to illustrate what a cumulative and specific curriculum could accomplish. Some seven hundred schools in 45 states now follow the Core Knowledge content sequence to good effect. The achievements of the Core Knowledge schools have been outstanding illustrations of the virtues of specificity of grade-by-grade core content in narrowing the two gaps.

Here's an interesting chart. It's derived from the 2006 report of verbal scores in New York City schools put out by the New York State Dept. of Education. It gives the percentages of students who read at the proficient or advanced levels. I thought it would be informative to compare the average percentages of the two Core Knowledge charter schools in New York City — the Carl Icahn school, and the Harlem Day School (which stops at grade 5) with the average percentages of the three KIPP charter schools in New York City. The KIPP schools, as you may know have received a lot of justified notice. They do much better than the schools in their neighborhoods.



To be fair, the fifth-grade students in the KIPP schools have been in their school just one year, whereas many of the Core Knowledge students have been in their school for several years. But that, after all, is my point. It's the *cumulative* effect of a coherent curriculum that ultimately makes a big difference in verbal scores. Knowledge of language and knowledge of things need to be fostered productively from the earliest grades. These all-important verbal scores are simply not highly amenable to short-term intensive work in middle and high school. The rightly-admired KIPP schools would be even better if they started in early grades, and adopted a cumulative year-by-year core curriculum set up in advance.

Let me draw to a close. Schools need to adopt a multi-grade core curriculum that uses time productively, and thereby ceases to leave students behind and waste huge amounts of time in the classroom. For years teachers have told me that the first six weeks of school are devoted to so-called review. The word "review" here is a euphemism. It is really an attempt to impart preparatory knowledge students that should have already gained but did not. It is astonishing how hard it has become for an American school to deliver a coherent, cumulative curriculum over several years. Our available textbooks huge and fragmented have been created in a commercial environment that actively discourages a focused, selective, and coherent pattern of instruction which builds up needed preparatory knowledge.

Here are the titles of some typical stories upon which our children are practicing their reading exercises: I list them in sequence from the table of contents of the best-selling reading program by Houghton Mifflin: *A Dragon Gets by, Roly Poly, How Real Pigs Act, It's Easy to Be Polite, Mrs Brown Went to Town, Rats on the Roof, Cats Can't Fly, Henry and Mudge and the Starry Night, Campfire Games, and Around the Pond*. These long mornings devoted to language arts are cognitive wastelands. Schools wishing to take a more coherent approach to imparting preparatory knowledge during the literacy block must make heroic efforts.

Thus one very immediate reform concerns language arts. The greatest wastes of school time occur in the so-called literacy block — the two to three hours spent every day pursuing the futile hope that trivial stories and mind-numbing drills offer a shortcut around the need for the broad general knowledge needed for reading. Little coherent knowledge is conveyed in these literacy periods which occur at the freshest time of the day.

So we need both better content standards and better materials. And we specially need coherent knowledge-based programs in language-arts. Creating such a coherent, content-based program is one of the most promising practical undertakings that we could engage in to help schools raise achievement and narrow the fairness gap. That's why my colleagues and I have been engaged for many months on the arduous task of creating such a program — and seeking funds to complete it.

Thank you for your attention. I've presented a lot of material in this talk, but for me it boils down to one big point. (They say that the fox knows many little things, but the hedgehog knows one big thing.) The one big thing that our children most desperately need is the one thing that we have been told we must *not* offer them — namely a highly specific, cumulative, multi-year, core curriculum, oriented to content and planned out in advance. If we were to embrace that one forbidden thing, much else would more readily fall into place, including teacher training, school morale, student discipline, and the narrowing of the gaps.