



A Step Backwards: An Analysis of the 21st Century Skills Task Force Report

On November 18, 2008, the 21st Century Skills Task Force presented a set of recommendations to the Massachusetts Board of Elementary and Secondary Education (BESE) on why, how, and where to incorporate “21st century skills” in the state’s current academic standards and assessments for students and teachers. On December 16, the BESE agreed to ask the Commissioner and his staff at the Department of Elementary and Secondary Education (DESE) to develop an implementation plan. The DESE is expected to suggest a preliminary set of implementation priorities at the February BESE meeting, and to provide a more extensive response later this spring.

The purpose of this policy brief is to help DESE set priorities for implementation of the task force’s recommendations. It outlines areas where Pioneer believes the task force has crafted useful recommendations and suggests how they might be implemented. It also calls attention to recommendations that we believe are mistaken in their emphasis on skills and pedagogy over academic content, and display a lack of practicality and knowledge of both state policy and local, district-level realities.

POSITIVE CONTRIBUTIONS IN THE REPORT

1. The task force is right to recognize that, as a result of the Massachusetts Education Reform Act (MERA) of 1993, public education in Massachusetts has demonstrated impressive across-the-board increases in student achievement, particularly in English language arts (ELA), mathematics, and science. It is also right to urge vigilance and further effort to improve our system of public education. Students need an array of social, technical, and communication skills to compete successfully in a global economy, including “critical thinking,” “problem-solving,” and “financial, economic and business literacy” (p. 5). These specific skills, which are already explicitly embedded in the state’s current academic curriculum frameworks, will continue to need further emphasis.

Jim Stergios is Pioneer’s Executive Director.

The Center for School Reform seeks more school choice for parents and an accountable system of public education for all students. The Center’s work builds on Pioneer’s legacy as a leader in the charter public school movement and champion of greater academic rigor in Massachusetts’ schools. Current initiatives promote choice and competition, school-based management and math and science education.

A Step Backwards

2. The task force report notes on page 11 that “21st century educators must be equipped with these skills,” based on “a deep understanding and knowledge of the content in subject(s) they teach” and aided by “an ongoing and measurable commitment to improving instructional practice.” The fact is that teachers will need even stronger content knowledge if they are to gain the ability to teach problem-solving, public speaking, and other communication-related “21st century skills.” As Daniel T. Willingham, a professor of psychology at the University of Virginia and an expert in cognitive psychology in K-12 education, noted in a recent *Education Week* article on the West Virginia experience with 21st century skills:

“[P]roject-based-learning format *requires teachers to know their content in more depth* than for typical teacher-directed instruction, even after they have launched the projects... [I]f the students are given control over most or at least part of the lesson, you’re following their interest, ... You really need to know your content to evaluate whether a student idea is likely to be fruitful, or needs to be narrowed down, or they need to try something else.”¹ (emphasis added)

Teachers will need even stronger content knowledge if they are to gain the ability to teach problem-solving, public speaking, and other communication-related “21st century skills.”

We strongly support the task force recommendation to “redesign the teacher preparation, licensure, and professional development systems to attract, retain and nurture high-achieving candidates” (p. 12).

Further work by the DESE to ensure that teacher preparation programs provide the necessary academic content knowledge is required in the next phase of education reform. In undertaking this work, Pioneer would urge policymakers to eschew the view that the entire teaching force can be upgraded through professional development. There is little evidence that teacher quality can be substantially improved

by “back-loaded” professional development. In fact the National Mathematics Advisory Panel’s (NMAP) report in 2008 notes otherwise. Finally, if the task force truly seeks to hold teachers accountable for the results of their instruction in 21st century “how-to” skills, we urge that energy be put into considering how 21st century skills can best be taught or measured, since there is only a small body of credible or supportive research on the topic.

The report mentions a program (p. 12 text box) that engages teachers in 21st century skills related to global economics, human rights, the environment, health and education. All of these are important topics for history teachers to address. But unless teachers have a strong foundation in history, and perhaps economics, discussions of “social justice” and “globalization of culture” will be little more than exercises in political opinion.

3. The report’s call to “encourage schools to offer online learning options to students” (p. 14) is an important, immediate way to provide academic sustenance for higher-order learning. Pioneer would be pleased to offer technical support and introductions to individuals who are leaders in this area of education reform. The winner of Pioneer’s 2008 Better Government Competition was the Florida Virtual School effort managed by Julie Young, a national leader in online learning (see http://www.pioneerinstitute.org/pdf/bgc_08_compendium.pdf for a summary of the winning entry).

4. We agree with the report’s call to “develop a growth model component of the state’s assessment system” (p.18). In order to make data more valuable to teachers and principals, the BESE should direct DESE to develop a data system that can be provided to all districts that enables them to have the ongoing diagnostic capacity to remediate students, support teacher professional development, and, if necessary, remove underperforming teachers. Policymakers should look to the Barnstable Public Schools, where for several years district officials have used locally generated test data (based on MCAS) called BCAS, which is administered quarterly. A school-based

district official then works with principals and teachers to use the data to target specific areas of instructional and academic weakness among both faculty and students.

5. We support additional time on learning, as long as the effort is tracked and there is subsequent evidence that more was learned, and not simply on “after school” programs (p. 21).

There are many aspects of the report about which we have no opinion, such as the Creative Teaching Partners Initiative (p. 22). In part, our lack of a view on this and other elements of the report is a function of our recognition that the current fiscal situation renders a number of new programmatic expansions unlikely for the foreseeable future. We would also note that funding for existing programs in the education budget, such as MCAS remediation, have been cut and will need to be restored before we believe it is reasonable to consider expansions. These cuts to MCAS remediation funding, together with a general lack of alignment of the state’s curriculum frameworks in the largest, lowest performing urban districts, remain major elements of the 1993 Education Reform Act that still must be implemented.

NEGATIVE ASPECTS OF THE REPORT

The report has four major areas of weakness. First, its premises are at times misinformed and misleading. Methodologically, it is weakened by the fact that many of its assertions and recommendations lack supportive data. Notwithstanding isolated sentences that underscore the need for a strong foundation in content, its overarching message is to consider skills equivalent to or more important than academic content. Finally, aspects of the report are ideological rather than practical, especially its view of local realities in districts and schools—particularly urban schools.

Misinformed and misleading premises

Cloaking itself in the language and needs of business, the report makes a number of arguments that singly

or together are supposed to justify a different path—a new phase—in education reform built around 21st century skills. But a closer look at its premises shows them to be misinformed and misleading.

1. The report states that “international assessments show that other countries have surpassed the United States in math and science education” (p.10). However, while this may be true of the United States in general, it is not true of Massachusetts, the target of the proposed reform. The recently released Trends in International Math and Science Study (TIMSS) data demonstrate that our educational attainment in mathematics and sciences is now among the best internationally at the fourth and eighth grade levels. We are, thanks to MERA and accountability, able to compete in mathematics and science, crucial disciplines for the 21st century, with the rest of the world. Moreover, the best way to further improve our students’ mathematics and science skills is to teach them more mathematics and science.

2. The report states that “the changing economy and increasing expectations of employers make clear that a new phase of Education Reform must begin” (p. 4). However, while we agree that 21st century employers want employees who can be creative, collaborative, and solve complex problems, they will look at those skills only after they confirm that prospective employees have mastered the “three Rs”, which, despite the progress students have made in Massachusetts, is not uniformly true. Urban students, for example, have not come close to mastering the “three Rs.” While 74 percent of 10th grade students statewide were ‘Proficient’ or ‘Advanced’/above ‘Proficient’ in English Language Arts in 2008, in large urban districts like Boston, Fall River and Lawrence, that number was only 58, 49 and 37 percent, respectively. In mathematics, the percentage of students in these three sample urban districts achieving proficiency or better was only 59, 43, and 30 percent, respectively. In science and technology, the percentage of students in these urban districts achieving proficiency was only 29, 39, and 6 percent, respectively. We suggest remaining focused on mastery of the “three Rs” before “moving the

A Step Backwards

goal posts” to seek ill-defined higher-order skills that are dependent on a strong foundation in the basics. If districts that have demonstrated mastery—that is, select suburbs such as Weston and Lexington—would like to implement 21st century skills as an add-on, they have been free to do so all along, and should be encouraged to do so now. They would indeed be the most appropriate districts to pilot implementation and assessment tools for 21st century skills.

3. The report asserts that the current curriculum frameworks lack relevance. However, there is little evidence that the task force members did a “gap analysis”—that is, they did not look for relevance in the current curriculum or try to identify those 21st century skills that are already embedded in it. On page 14, the report urges the state to “review the content of each framework to place focus on subject matter most relevant to today’s world,” but fails to present anything to indicate what relevant content it found missing. One wonders why the task force did not call upon any of the many teachers, DESE staff, scholars, researchers, and other experts who created and reviewed these frameworks for the DESE before publication. They would have been able to provide informed views on what might be missing in 2008 from the state’s highly rated standards, and what 21st century skills they thought were missing from these documents. The task force might have learned that important skills were already embedded in these documents, especially in the numerous and highly regarded examples of lessons and activities provided in each framework, all of which had been critically reviewed by experts.

4. The report argues for the necessity of a new stage of reform by charging that “[n]ew data have proven that simply passing the MCAS does not translate into higher education success” (p.16). This amounts to an inaccurate and retrograde view of the MCAS, and it is akin to asserting that a C average in 10th grade “does not translate into higher education success.” No one involved in drafting the Education Reform Act of 1993 or developing the MCAS and its scoring system, ever opined that a ‘Needs Improvement’ score (the “passing” score referenced in the task

force report) is sufficient for success in college. A 220 score on the MCAS is a floor for a high school diploma, not a predictor of college success. The right question for the task force to consider is whether the better one does on standardized tests like the MCAS, the more likely he or she is to succeed in college and in a later career.

No one ever opined that a ‘Needs Improvement’ score is sufficient for success in college.

The nationally renowned curricular expert E.D. Hirsch provided a clear view of testing at a December event sponsored by Harvard University, MassINC and Pioneer Institute:

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. The standard reading tests, including the Armed Forces Qualifying Test (AFQT), the NAEP, and MCAS, as well as national reading tests like the Stanford, the Iowa, and the Gates-MacGinitie, correlate well with one another and with real-world abilities.

Lack of a data-driven basis for assertions and recommendations

In the previous section, it was pointed out that little data on relevance and the improvement in mathematics and science achievement were considered in the creation of the report. There are numerous other assertions made without the benefit of evidence. These are not trivial assertions as they relate to instruction, assessments and the entire 21st century skills enterprise.

1. On page 15, the report states that “contemporary mathematics instruction has been criticized for focusing on memorization of terms and procedures while neglecting 21st century skills.” Similar criticisms were often heard nationally 20 years ago, so this is hardly a new perception. Given the syntax

of the assertion—the passive tense—we are left wondering who it is that is “criticizing” mathematics instruction. Without data or available expert opinion to substantiate the claim, the assertion is little more than a newer version of the prejudicial view that the MCAS is dumbing down the curriculum—this time the mathematics curriculum.

There is no evidence provided to support the view that math teachers focus on memorization.

The suggestion seems to be that the state’s mathematics teachers focus on memorization and formulas, or even basic skills, at the expense of conceptual understanding. There is no evidence provided to support this view. In fact, this would be hard to argue since the state has had a National Council of Teachers of Mathematics-based K-12 mathematics curriculum framework since 2000, and because our urban schools, and even a number of suburban schools, are dominated by “reform” mathematics programs (e.g., Investigations or EveryDay Math).

The task force, further, presents no data that our schools have failed to teach reasoning, problem-solving, and conceptual understanding. Indeed, the 2007 TIMSS results suggest that they have done that quite well. Finally, there is no mention of the 2008 report issued by the NMAP, which found that automatic recall of number facts and arithmetical operations is essential to success in algebra, which is a gateway course for higher-level mathematics.

2. Although the report recommends “maintain[ing] the existing rigor of the MCAS exams,” it also claims that it can “strengthen them by adding complementary measures...to assess student achievement in 21st century skills.” No research evidence is adduced to show that students’ conceptual understanding has been measurably enhanced by the addition of 21st century skills to state assessments, and no data are presented that efforts to teach these skills have achieved specific measures of success.

As demonstration of their importance, the report cites district leaders’ support for multiple assessments (p. 16). What their support means is that a key group of stakeholders likes multiple assessments—no more and no less. But is that really the question we should be posing, if this is a policy and not a political document? It is akin to asking superintendents of water districts what they want, and hearing back from them that they would like to remove all the expensive regulations pertaining to stormwater pollution and also to receive more money from the federal and state governments to hold down the cost of water for their constituents. It is good to hear what stakeholders want, but it does not make their wish list good policy.

There was evidently little preparation done in terms of the types of tests that are reliable across populations and correlate with success in college and the working world. Statements such as, on page 18, “We must find a new way to measure the degree to which students are learning the skills they will need...” come without any justification in the data.

The task force must answer this question: Why would we adopt the failed Connecticut strategy?

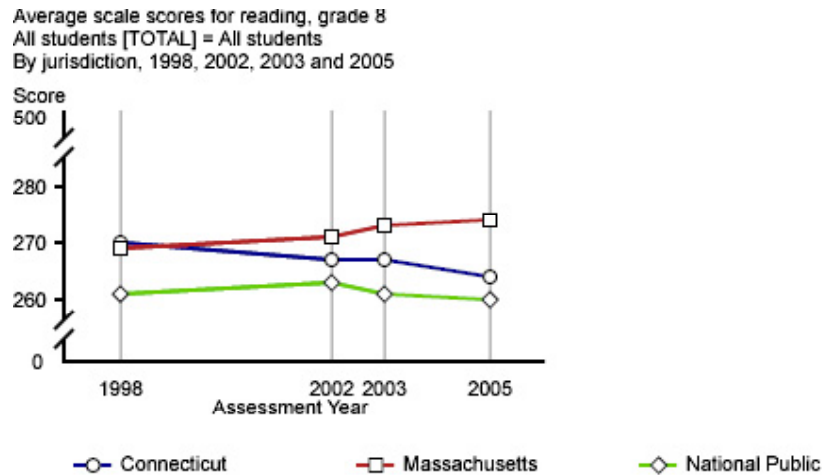
Professor Hirsch, at the aforementioned event, demonstrated that the data in fact tell the opposite story. He asked:

If we are going to re-examine Massachusetts policy, one thing we will want to ask is what sort of standards, curriculum frameworks, and tests will most effectively help raise levels of reading comprehension even further?

He answered the question by drawing a comparison between Massachusetts and Connecticut. In recent years, Connecticut chose to emphasize “how-to” skills, and Massachusetts chose to emphasize content. In presenting NAEP reading test data from 1998 to

A Step Backwards

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.

2005 (Figure 1) for the two New England states and the nation, Hirsch noted that Connecticut started out scoring slightly higher than Massachusetts in 1998, but that Massachusetts had the nation's best record of reading improvement since then.

Hirsch concluded that the data:

Show Connecticut doing its best to descend to the national average in reading. From these data points, we can draw a quick inference. The policies followed by Connecticut between 1998 and 2005 ought to be avoided. And those followed by Massachusetts in recent years ought to be strengthened and improved.

He continued:

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 yielded poor 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.

The state of Connecticut has in the past year sought to reverse that intellectual and scientific error. Connecticut has adopted many lessons from the Massachusetts experience, starting with adoption of the Bay State's emphasis on content. The task force must answer this question: Why would we seek to adopt the old Connecticut strategy?

No research evidence is adduced to show that students' conceptual understanding has been measurably enhanced by the addition of 21st century skills to state assessments.

3. The report asserts (p. 18) that "Massachusetts can learn from the experience of West Virginia" but gives no justification for the statement. The subsequent clause simply notes that West Virginia "has overhauled the focus of its public school system to fully integrate 21st century skills" and that

Figures 2A & 2B: West Virginia Reading and Math Achievement

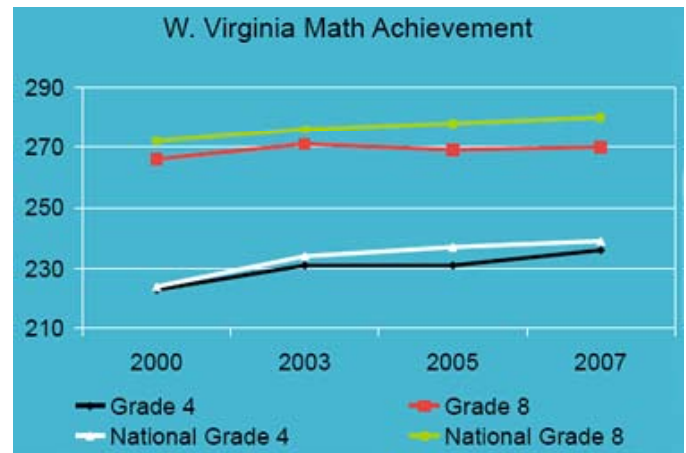
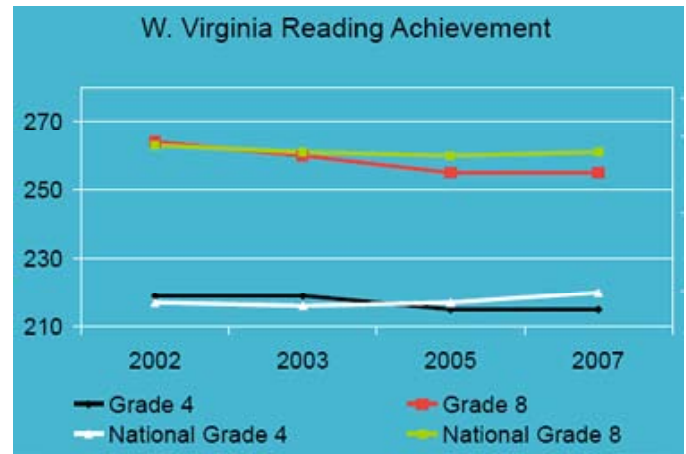
“education officials” in West Virginia “largely credit their success to an early effort to educate everyone... about the importance of 21st century skills.”

There is no consistent sign that the implementation of a “21st century” curriculum has had any positive impact on student performance.

We need a better understanding of the “success” of 21st century skills before we begin trying to implement them. The fact is, however, there is presently scant evidence of success, in great part because the advocacy effort to promote these skills is still young. The emphasis on new skills began in 2002, with the creation of the Partnership for 21st Century Skills. This renewed effort to focus on skills, as opposed to the above-mentioned experience in Connecticut, may or may not be leading to improvements in student outcomes, but there is, as yet, no consistent sign that the implementation of a “21st century” curriculum has had any positive impact on student performance. While it may be an open question, the wisdom of basing a major policy change on an open question is not, itself, a wise decision.

It is puzzling why Massachusetts would emulate West Virginia.

Given Massachusetts’ record of steady improvement, the lack of any statistical evidence of the benefits of a 21st century curriculum, and West Virginia’s inability to keep up with national averages, it is puzzling why Massachusetts would emulate West Virginia. Furthermore, West Virginia only began its designation as a “21st century state” in 2005, so little can be drawn from its experience. As Figures 2A and 2B demonstrate, West Virginia lags behind the national average in student achievement as measured on the NAEP. The same is true for West Virginia’s rate of improvement for Grades 4 and 8: it is improving more slowly than the national average.



Between 1998 and 2007, it saw large drops in Grade 4 and Grade 8 reading achievement on the NAEP.

4. The report has a tendency to view particular program successes and attribute to them general applicability. Throughout the report, the task force cites specific teaching strategies and programs as needed in schools on a general basis. It goes so far as to misuse the findings of Pioneer Institute’s recent report on the regional vocational-technical school model (see Vocational-Technical Education in Massachusetts, available at <http://www.pioneerinstitute.org/pdf/wp42.pdf>) as a justification for the 21st century skills effort, stating “replicating this [vocational-technical school] success statewide will require a shift in our curricular priorities” (p. 13). Pioneer clearly viewed the success of the vocational-technical schools as one element in a larger context of needed change.

A Step Backwards

In any policy discussion, or even basic reasoning, it is dangerous to extrapolate from the particular to the general. Vocational-technical schools have many lessons to offer, with their hands-on occupational training and increasingly strong academic programs. They are essentially choice schools and engage parents and students on a more individualized basis. Their success as a school model is premised on an embrace of occupational as well as academic frameworks, testing and data-driven improvement. Their success may be a sign of some applicability regarding remediation for selected students in the larger, lower-performing systems. It would, however, be a mistake to extend those lessons statewide.

Pioneer has a fundamental disagreement with the task force; we support a data-driven approach to policy.

If the report's weak premises give Pioneer pause, the rush to implement "the full-scale change in thinking, teaching, and learning detailed in this report" without any basis in data makes Pioneer a full-fledged critic. We have a fundamental disagreement with the task force inasmuch as we support a data-driven approach to policy. We urge the DESE to be diligent in using data to determine the applicability of the task force's recommendations. This is especially so given the intended reach of this report: we are not talking about adding a few skills in a way that does not dilute content, as we further demonstrate below.

Content over skills

Former Senate President Thomas Birmingham, one of the principal authors of MERA, noted at the aforementioned December event that he was "personally discomfited" by elements of the report that "may threaten to dismantle the structure of our success and drive us back in the direction of vague expectation and fuzzy standards." Birmingham underscored his "worry about a soft subversion of objective assessments, a watering down of clear expectations with vague aspirations." There are many reasons to be concerned. For example:

1. The task force members acknowledge that "most people still do not know what 21st century skills are, let alone how to teach or assess them" (p. 10). One is right to wonder: If the skills are so vague, how do we know that we need them?

2. As noted above, we have no evidence that implementation of this agenda has led to distinct and measurable improvements in student achievement. Does the task force have any state besides the underwhelming achievement of West Virginia to point to?

3. The report (correctly) states that "today's employers want employees who can think on their feet, solve problems creatively, use technology to complete their work and work well in teams" (p. 4). But it takes the statement of that goal to mean that it is appropriate to treat skills and pedagogical method, or as the report quotes Richard Murnane, "how [teachers] empower students to use that information" (p. 5), as equivalent to or more important than content.

- In doing so, the task force misuses the curriculum frameworks and the MCAS. Good teaching and high quality teachers are essential, but MERA did not view curriculum frameworks and MCAS as the place for state-mandated teaching strategies or pedagogies. As a practical policy matter, the state cannot impose its view of appropriate instructional strategies on local districts and nearly 70,000 teachers statewide. Matters of specific curricula and teaching strategies have always been a matter of local control and the fundamental dignity of teachers in their classrooms.

- While the report does recommend "that 21st century educators must be equipped with these skills," and "a deep understanding and knowledge of the content in subject(s) they teach," this exhortation rings hollow as it is only tangentially (and inconsistently) connected to the recommendations. If this were the intent, the report would have spent time on how teachers will gain that "deep" content knowledge. For example, the report might have addressed

teacher quality directly, with specific suggestions on how to strengthen teacher preparation and state-approved teacher programs in all major subject areas, or it might have called for piloting within schools of education teacher training programs, followed by assessments given by the faculty to show whether these prospective teachers have learned how to teach these new skills. After all, how can we hold our teaching force accountable for teaching these skills, when we have no evidence that our education school faculties can teach prospective teachers these skills? This kind of policy is unjust to our teachers, who have had no opportunity to respond yet to the task force's views on who should be held accountable for teaching 21st century skills.

MERA did not view curriculum frameworks and MCAS as the place for state-mandated teaching strategies or pedagogies.

* Finally, in the section “Demonstration Vehicles” (pp. 20-21), the report calls for the 10 Commissioner’s Districts to serve as the first “21st century districts.” The Commissioner’s Districts—Boston, Brockton, Fall River, Holyoke, Lawrence, Lowell, Lynn, New Bedford, Springfield and Worcester—have only recently or have not yet aligned their local curricula with the state frameworks. They have the highest number of underperforming schools on a proportional basis in the state. What this means is that the task force views skills as more important than, or at least equivalent to, a strong foundation in content.

4. A greater focus on vague skills ultimately will mean less content knowledge and conceptual understanding in each subject area. As E.D. Hirsch has demonstrated and as he made clear at the December 15th meeting of the BESE, academic content is far more important than specific skills:

Is it the case, as implied here, that problem-solving, critical thinking, innovation and other

desirable traits, here called “skills”, are separable, transferable skills that are independent of a student’s expertise in a specific domain? Do such traits even exist as all-purpose transferable skills?

Even if they did exist independently (which is doubtful), would the best way of inducing critical thinking, innovation, and other desirable traits be the method of “hands-on,” integrated projects, combined with assessments based on those projects?

The psychological literature indicates that skepticism is in order on both of these points.

In noting that the psychological literature states that direct, analytical instruction is usually more time effective in developing knowledge and skills than is project-oriented instruction, and in citing Jeanne Chall’s view that analytical, direct instruction is superior to projects for all students, but most of all for disadvantaged students, Hirsch asked the core question:

Does the board want to require a particular (widely questioned) method of teaching rather than requiring results?

Pioneer believes that the answer should be an unequivocal no.

Lack of practicality and awareness of federal, state, and local policy

The task force would have been wise to provide stronger preparation to members in the basic elements of federal, state and local policy. A number of changes have been implemented in the past two decades.

1. Stating in the Accountability section of the report, on page 18, that the task force recommendations will be “in addition to meeting our state and federal accountability standards” demonstrates a lack of understanding of federal law and policy. Federal law requires that by 2014 Massachusetts students

A Step Backwards

perform at approximately the level of a 240 score on the MCAS. There is nary a mention of increasing the MCAS “passing” score, even though better scores on the MCAS correlate strongly with success in college and in one’s career, a key goal of the task force’s deliberations.

Does the board want to require a particular (widely questioned) method of teaching rather than requiring results?

2. Misunderstandings of state law and policy are apparent in a number of sections. As noted above, the call for embedding the “themes identified by the Partnership for 21st Century Skills” (p. 5) comes without any gap analysis of what is needed and what was already in the state’s curriculum frameworks. Task force members are calling for changes to frameworks with which they are clearly unfamiliar. The text suggests that task force members believed that there was no “thinking” or “problem-solving” in the current frameworks. Nor did they recognize that “financial, economic and business literacy” is already included in the frameworks. The remaining elements that are called for in the report—namely, “information and communication”, “interpersonal and self-directed skills,” “global knowledge and understanding,” and “civic literacy” are decidedly ill defined. In this way, the task force is engaging in the tried and true practice of “reinventing the wheel” without due consideration to what has previously been accomplished. Given the dramatic level of improvement in Massachusetts’ performance over 15 years, the lack of curiosity is particularly troubling.

3. The report displays an unrealistic view of the educational attainment and the state’s ability to change curricula in urban districts rapidly. For example, on page 4 of the report’s statement that “where basic skills once sufficed for low-level jobs, those positions are scarce today” does not take into consideration the fact that basic skills still have not been made available in a great number of urban districts. As noted above, these districts have not or

have only recently aligned local curricula with the state academic frameworks. Without access to the rich academic content the state requires, not only is it entirely predictable that urban students have demonstrated slower progress on the MCAS, but they still lack basic knowledge and skills.

Without access to the rich academic content that the state requires, it is entirely predictable that urban students have demonstrated slower progress on the MCAS.

The inertia in the larger urban districts raises four important questions:

- a) How can these students acquire 21st century skills when they don’t even have the basic content to use to develop these skills?
- b) Won’t changing the frameworks midstream, in terms of goals, further push back these low-performing urban districts?
- c) Wouldn’t it make sense to implement the current frameworks first and only later consider anything resembling “the full scale change in thinking, teaching and learning detailed in this report”?
- d) What is the projected cost of implementing 21st century skills in school districts that are already in jeopardy of not meeting the state-mandated “foundation budget” requirements?

The answer to (a) is they cannot.

The answer to (b) is yes. To local officials, it will be especially clear that state policymakers are once again “reinventing the wheel.” Local diffidence to and even obstruction of state policy is often based on this perception.

The answer to (c) is yes. If the report aims to provide higher-order skills to all children, it is incumbent on the BESE and DESE to ensure first that urban students

have a solid foundation in content. This can be accomplished through a technical assistance program that aligns local curricula with the state academic frameworks. Given ample evidence of success in other districts, this would be more reasonable than trying out a policy change unsupported by data.

The answer to (d) is that the Secretary of Education, the task force, the Board of Elementary and Secondary Education, and the DESE have not included any cost projections for this 21st century skills proposal. Meanwhile, according to a February 2, 2008 editorial in the Boston Globe, “Department of Education data show that 153 school districts will fall a total of \$168 million short of their “foundation budgets” due to changes in enrollment or other costs.”

If the report aims to provide higher-order skills to all children, it is incumbent on the BESE and DESE to ensure first that urban students have a solid foundation in content.

In several of the key Commissioner’s Districts the “foundation” budgetary shortfalls are significant. In Brockton the shortfall is projected to be \$5.6 million; in Holyoke \$1.6 million; in Lawrence \$6.7 million; in Lowell \$2.6 million; in Lynn \$1.7 million; in New Bedford \$3.1 million; in Springfield \$13 million; and in Worcester \$14.3 million.

The report’s focus on the Commissioner’s Districts would return the state to the two-tier standards that plagued public education in Massachusetts prior to the passage of Education Reform in 1993. Piloting the 21st century skills effort in urban districts will mean that schoolchildren in suburban communities will continue to have access to rich academic content from their parents and community, and likely also at school. In contrast, urban students, who often lack access to important books and culture in community and parental interactions, will continue to lack that focus at school. A return to two-tier standards is a retrograde policy action that the Board certainly does not intend.

If there is any argument to be made for implementation of the “21st century skills,” it is not in large urban districts where students have not yet demonstrated mastery of the needed content, but rather in districts like Lexington, Weston, and Wellesley, where they have. The recommendation to pilot 21st century skills in urban districts betrays not only a lack of familiarity with the implementation of the current curriculum frameworks at the local level, but a breach of the report’s own call to strengthen standards. Without a strong basis in content, there are no skills. For policymakers, content mastery must be the first mission. Only in those areas where mastery has been demonstrated should changes be contemplated. Any other conclusion denies available evidence and is therefore intellectually misguided.

RECOMMENDATIONS

We urge DESE and BESE to undertake the following actions:

- 1.** Establish a plan of action to align the local curricula with the current state frameworks in the 10 largest and lowest performing districts in the state. Before committing the Readiness Centers “to serve in part as 21st century skills capacity-building centers” (p. 14), use them to provide technical assistance to districts to align their local curricula with the existing state frameworks.
- 2.** Establish a plan of action to use MCAS data to inform improvements in curriculum alignment, professional development for teachers and administrators, and enhanced instructional practices in the 10 largest and lowest performing districts in the state. The goal should be to allow local officials and especially teachers to disaggregate test scores in a manner that is useful to instruction throughout the year.
- 3.** Ensure that teacher preparation programs provide far stronger content knowledge. In undertaking this work, eschew the view that the entire teaching force can be upgraded through professional development

A Step Backwards

and include a focus on expectations for schools of education.

4. Develop a growth model component for the state's assessment system. As part of this effort, require that DESE study the Barnstable Public School system, where for several years now district officials have used locally generated test data (based on MCAS) called BCAS, which is administered quarterly and which is used to support principals and teachers in targeting specific areas of instructional and academic weakness among both faculty and students.

5. Encourage schools to offer online learning options to students, building from the successful model in Florida (the Florida Virtual School).

6. Require that any expansion of Expanded Learning Time will add time spent on academic learning and instruction, with evidence that more was learned.

We urge DESE and BESE to undertake the following actions as regards the 21st century skills agenda:

1. Revise the baseline report by:
 - a. reviewing the state's curriculum frameworks with an eye toward understanding their content;
 - b. hearing from curricular experts in the academic disciplines to determine what gaps exist between the current frameworks and what is necessary; (It is clear even to a casual observer that the task force members, during the drafting of the report, did not do a gap analysis between what is in the current frameworks and the skills that task force members sought to emphasize.)
 - c. analyzing various assessment regimes in other states that have employed multiple (or portfolio) approaches; (For example, research studies from Vermont or states that have tried portfolios and other projects to determine strengths and weaknesses, costs and challenges in implementation.)

- d. rethinking sections of the report to reflect the reality that only a small proportion of Massachusetts students have attained the level of content knowledge needed (mastery) to begin undertaking "how-to" skills.

2. Create a process to develop separate, peer-reviewed state curriculum frameworks for 21st century skills that are (a) of equal quality to the preexisting, nationally recognized frameworks for ELA, mathematics, science, and history/social studies, and (b) can demonstrably be taught and measured.

3. Create pilots to test out 21st century skills, together with assessment efforts, but restrict the pilots to districts and schools where students have clearly demonstrated mastery of the "three Rs."

Endnotes

¹ Daniel T. Willingham, '21st-Century Skills' Focus Shifts W.Va. Teachers' Role, January 2009. *Education Week*.



PIONEER INSTITUTE
PUBLIC POLICY RESEARCH

85 Devonshire Street, 8th Floor, Boston, MA 02109 |

T: 617.723.2277 F: 617.723.1880 |

www.pioneerinstitute.org