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How States Can Advance Deeper Learning for All

BY ACE PARSI

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How States Can Advance Deeper Learning for All

By Ace Parsi

Problem solving, resilience, and self-reflection remain buzzwords in education and rightfully so: These skills and attributes—along with others that are commonly tagged with the phrase "deeper learning"—are key to students' college, career, and civic success.[1] Yet there are myriad barriers to ensuring that all students engage in this higher level of learning: poverty, lack of physical security in students' communities, inequitable distribution of resources for schools, unhealthy school climates, and discrimination.

"My story is my own but probably more similar to other youth."

—Caitlin Cheney, 2012 National Association for the Education of Homeless Children and Youth Scholars

While the barriers to deeper learning in schools serving large numbers of diverse and high-poverty student populations are real, so are the assets that these students bring to the classroom. Caitlin Cheney embodies many attributes that schools would like to nurture in all students. As a high school freshman, Caitlin and her family lost their home and were forced to live in a tent community. Far from a bus route, Caitlin often hitchhiked to school and solved a number of difficult challenges: "How will I be able to eat tonight? How can I keep my clothes and myself clean? How does living in a tent affect my sister's mental health and need for medication?" Before reaching her senior year, Caitlin's living conditions changed several more times: She lived with an aunt and helped her as she recovered from brain cancer; spent a stint with an alcoholic, abusive relative; and then, through self-advocacy and the support of the school district's homeless liaison, attained status as an unaccompanied youth and lived with a friend. Caitlin not only survived these difficult years, but through sheer will, communication skills, and a dedicated support system, she thrived. Today she studies zoology and wildlife rehabilitation at Washington State University in Pullman, Washington.

Caitlin's situation is not an outlier. An increasing number of students fall into some category of significant disadvantage: racial segregation, disability, poverty, or participation in foster care or juvenile justice systems. Yet Caitlin's identity is not simply that of a homeless student facing hunger and insecurity but that of a resilient young woman who has solved complex challenges. This is true of many students in the nation's PK-12 schools. This report identifies both the challenging realities students and schools in high-poverty communities confront and the assets they bring to the classroom. It also includes policy suggestions that can enable states to help schools reduce barriers and make better use of community assets to help all children succeed.

One factor that poses both challenge and opportunity for almost all states is the unprecedented diversity in the nation's schools. The US Department of Education estimated that 2014 was the first year that the majority of students in the nation's schools were members of a minority group; that fact affects how all states serve their students. So does poverty. According to a Southern Education Foundation estimate, 2013 was the first year that more than half of students in the nation's schools were low income.[2] Today, more than 60 percent of students with disabilities spend 80 percent or more of their day in general education classrooms. State board of education members, legislators, governors, and state education agency (SEA) staff should take a hard look at the implications of these trends for resource allocation and teacher preparation and present a cohesive plan to serve all students in a period of decreasing resources and increasing demands.

To understand what equity looks like for diverse youth and those living in poverty, all education stakeholders need a clearer understanding of what postsecondary excellence requires: not simply more years of education but an education in which all students are afforded opportunities to develop the types of deeper learning skills necessary for college, career, and civic success (see box 1). Students in postsecondary institutions are hampered as much, if not more, by the lack of critical thinking and problem solving skills and the inability to accept critical feedback as they are by lack of content knowledge.[3] These deficits persist in the career and civic space.

A 2003 Carnegie Corporation report drafted by national civic education leaders underscored that the nation's democracy relies on students developing not only civic knowledge but skills such as speaking, listening, and collaboration and dispositions such as empathy and self-efficacy.[4] Employers also regard these skills as essential to success in the workforce: Studies and surveys continue to indicate that more US jobs require higher levels of education than in the past and skills such as critical think-

[BOX 1]

What Are Deeper Learning Skills?

Deeper learning as used here refers to an education that facilitates mastery of academic content and other key competencies such as critical thinking and problem solving, effective communication, collaboration, learning how to learn, self-regulation, and academic mind-sets important for success in college, careers, and civic life.

NASBE encourages each state interested in integrating deeper learning as part of its goals to convene a diverse array of stakeholders—employers, postsecondary institutions, civic leaders, civil rights organizations, educators, parents, students, and others—to reach a common definition that can result in collective ownership across the state. Through this process, a number of states have identified additional measures that reflect deeper learning: South Carolina's **Profile of the Graduate** definition, which includes creativity and innovation; the Kentucky state board's explicit definition of **Global Competencies;** and **Oregon's Essential Skills**, which includes demonstration of civic and community engagement. content and other key competencies such as critical thinking and problem solving, effective communication, collaboration, learning how to learn, self-regulation, and academic mind-sets important for success in college, careers, and civic life.

ing, problem solving, collaboration, and communication.[5] The definition of what constitutes an excellent education must keep up with changes in society, even as states address the structural challenges of racism, discrimination, and the resulting unequal distribution of resources that has long plagued US schools.

BRIDGING CONVERSATIONS

In the pursuit of an equitable, excellent education for all students, policymakers are confronted with difficult questions that pit different philosophies of education against each other. What is the key challenge to equity and excellence in high-poverty schools: That they are underresourced or that expectations are too low? Is the main challenge the gaps in literacy and numeracy or uneven access to learning opportunities that reflect deeper learning? Is the key to breaking the cycle of poverty and underachievement making more substantial investments in pre-K so that students are ready to learn earlier or is it changing the way all students are taught? The answer to these questions is yes. Solutions posed in these questions are not mutually exclusive but complementary. To deliver on an equitable and excellent education for all their students, states need to evaluate policies and practices across three domains:

Resources. The state education system must ensure that schools and communities have the physical resources, human capital, and access to partnerships to provide all students an excellent education, including an acknowledgment that more resources are needed to address the needs of the most disadvantaged students.

Rigor. The state education system must ensure that all students have access to a rigorous education so that their diplomas do not limit access to postsecondary education, careers, military, or other options students might otherwise choose.

Educational Experiences. The state education system must support schools in providing all students experiences that reflect opportunities to engage in deeper learning necessary to succeed in college, careers, and civic life.

Leading national organizations and initiatives have called for action in these three domains. The Department of Education's 2013 Equity and Excellence Commission report called for states and the federal government to proactively invest in the resources necessary to educate students at a higher level, and educators, civil rights organizations, and employers have echoed this prescription.[6] The commission also called for higher expectations for all students, which civil rights organizations have demanded for decades.[7] Recent work by scholars Linda Darling-Hammond, Pedro Noguera, and Diane Friedlander focused on the need to devote resources and rigor toward the quality of educational experiences all students receive, particularly traditionally disadvantaged students.[8] Building on this foundational work, this report identifies state policy—and, in particular, state board of education actions—that can support deeper, more rigorous learning for all students.

The challenges high-poverty schools face related to resources, rigor, and rich educational experiences are significant but not insurmountable. A realistic approach to moving the needle on all three domains will require that states approach the circumstances facing their schools as opportunities, not just as barriers.

Students like Caitlin Cheney are not simply of the sum of the challenges their circumstances present but assets that can be their ticket to an excellent education. Similarly, schools that serve high concentrations of students in poverty also reflect the potential of hard-working educators, engaged communities, hopeful parents, and motivated students. States can account for and respect these assets, even as they proactively address the challenges high-poverty schools and their communities face. The passage of the Every Student Succeeds Act (ESSA) provides states more autonomy and responsibility in both leveraging assets and addressing barriers (see box 2).

RESOURCES

Decades of educational, sociological, and psychological research for have addressed students' needs. Perhaps most famously, psychologist Abraham Maslow in his hierarchy of human need illustrated that engaging in deeper levels of learning is predicated on addressing an individual's physiological, safety, and relational needs. In his seminal paper, "A Theory of Human Motivation," Maslow writes: "Any thwarting or possibility of thwarting of these basic human goals [physiological and safety needs] is considered to be a psychological threat … that will monopolize consciousness and will tend to itself organize the recruitment of various capacities of the organism."[9] In other words, unless a school addresses students' basic needs, achieving deeper learning becomes an uphill proposition (see box 3).

Compared with their more advantaged peers, high-poverty and minority students are more likely to be food insecure, be more fearful for their safety inside and outside of school, and face higher levels of educator turnover that deprive them of consistent adult relationships in school.[10] Beyond these Maslow foundational needs factors, these students have disproportionately lower access to technology and out-of-school experiences that can be leveraged to facilitate deeper learning.[11] Higher levels of need and limited access to high-quality staff, infrastructure, and programs pose significant obstacles to deeper learning in high-poverty schools, a fact that other industrialized nations have acted to address. International data show that the nations that make the greatest investments in education of their most disadvantaged students also have the highest performance on the Programme for International Student Assessment (PISA) tests.[12]

While the importance of inadequate investment cannot be discounted, policymakers and schools do their states and these students no favors by diminishing the assets that students, parents, and communities contribute. While these assets

[BOX 2]

Opportunities for States under ESSA

The Every Student Succeeds Act gives states greater autonomy and responsibility to serve their diverse learners. While No Child Left Behind, its predecessor, did not prevent states from taking the actions described in this report, ESSA frees states to increase the resources, rigor, and educational experiences that support deeper learning.

Resources. Because it is an authorization bill, ESSA cannot by itself change education funding states or their schools receive. Nevertheless, the law allows states to more flexibly direct resources, and it consolidated a number of smaller programs into larger pots that facilitate more comprehensive reform. The law has a few provisions regarding resource equity in schools. For example, a school with a student subgroup performing in the lowest 5 percent of all Title I schools must not only receive targeted supports but also identify resource inequities that it will address in its improvement plan. Additionally, ESSA introduced a new pilot program that will enable 50 school districts to establish weighted student funding formulas that include federal money. The pilot would empower districts to combine local, state, and federal funds to direct more resources to low-income students and other students facing significant challenges to learning, such as English language learners.[a]

Rigor. Under ESSA, states can use 3 percent of their Title I allocation for "direct student services," which includes participation in International Baccalaureate, Advanced Placement, or other advanced coursework; career and technical education experiences that lead to an industry-certified credential; and personalized learning.[b] Moving beyond NCLB's narrow accountability system, ESSA lets states design new systems that better incentivize deeper learning. The law requires states to implement assessments that "measure higher-order skills and understanding," specifically calling out examples such as "portfolios, projects, and extended performance tasks." Additionally, ESSA calls for a multiple-measures accountability system that includes at least one indicator of school quality or success. The law provides up to seven states the opportunity to implement an innovative assessment and accountability pilot, which can include performance- or competency-based assessments.

Educational Experiences. ESSA encourages states in actions that support educator capacity to facilitate deeper learning experiences. For example, new provisions in Title II highlight use of professional development funding to help school principals develop instructional leadership skills, which can in turn lead to integration of rigorous academics, career and technical education, and work-based learning. The law also encourages states to consider using Title I funds to integrate academic and hands-on learning interactions with industry professionals while enabling students to earn academic credit.

a. Andrew Ujifusa, "Funding Flexibility Enhanced Under New K-12 Law," Education Week 35, no. 15 (January 5, 2016): 12-13.

b. Alliance for Excellent Education, Every Student Succeeds Act Primer: High Schools (Washington, DC, 2015).

[BOX 3]

Resource Disparities

- **Poverty in America's Districts.** In 2009, almost 40 percent of all American students were enrolled in districts with concentrated poverty.[a]
- **Funding Varies Greatly by State.** The state with the highest per pupil funding (Wyoming) spent nearly two and a half times the amount of the state with the lowest per pupil funding (Tennessee).[b]
- **High-Poverty Districts Get Less.** In 20 states, high-poverty districts receive less state funding than low-poverty districts. In only 14 states, they receive more.[c]

a. US Department of Education, *For Each and Every Child—A Strategy for Education Equity and Excellence* (Washington, DC, 2013).

b. Bruce D. Baker et al., *Is School Funding Fair? A National Report Card* (Newark, N.J.: Education Law Center, 2010).

c. Ibid.

may not be financial, they are nevertheless assets. Where some may view English language learner status as an educational barrier, it can be an economic asset in a globalized economy that values those who can communicate in multiple languages.[13] The cultural backgrounds, abilities, and diversity of Native American students, students with disabilities, and other traditionally disadvantaged groups could be starting points from which to build school pride and relevant learning opportunities. In many cases, students are already using their backgrounds and talents in their places of worship, youth groups, or other activities and engage in both positive adult and peer relationships that can support deeper learning. The question is one of adult mind-sets: Is the education system suited to support a more personalized learning model where the different capacities of students and their communities are seen as assets, or are there only barriers to overcome?

Ulrich Boser of the Center for American Progress demonstrated that schools with different levels of resources get different results based on how they use the resources at their disposal.[14] Schools that empower students, parents, and community assets, in other words, can improve outcomes more than those that do not. Such actions can include relatively small steps: meeting with community members and parents and providing information in multiple languages to make the school a more welcoming place. Schools can also establish outreach coordinators and train staff to engage parents in enhancing students' education, to engage employers and community members in providing work-based and service-learning opportunities, and to partner with community-based organizations to help address key student needs. Additionally, schools can take more structural actions: adjusting calendars and master schedules to accommodate this level of engagement. The impact of working with parents and community partners in high-poverty communities can be even more pronounced than in the schools of their more affluent peers.

States have a responsibility to both support these school-level efforts and provide more resources to account for the demands of providing deeper learning opportunities in high-poverty schools. Such actions could include the following:

Improving data systems that identify student needs. States can ensure schools and educators have access to data that help them make better decisions about use of resources, hold appropriate stakeholders accountable for student subgroup results, and better inform instruction, facilitating personalized learning for all students.

Providing greater and fairer distribution of funding. States can advance funding formulas that account for the reality that many other industrialized nations have already embraced: It costs more to educate students in high-poverty areas than it does their more affluent peers.

Empowering schools to partner. States can provide toolkits and incentives for schools to leverage partnerships and ensure that schools fully engage their partners in developing school improvement plans for their lowest performing schools, which often are also those that serve populations with the highest poverty.

There are inherent limits to the effectiveness of these actions, particularly for state boards of education (SBEs). States can provide rich data systems but cannot compel schools and district officials to use them. SBEs have limited control over the amount of funds schools get and the funding formulas that guide their distribution, an action that is most often reserved for state legislatures and governors. And cultivating real partnerships can be arduous work to initiate and sustain, regardless of a state mandate and resources designated for that purpose. Therefore, it is essential to cultivate a perception of a collective, collaborative effort between policymakers and communities to deliver the resources and ensure their efficient, effective use. In areas in which state boards may have less policy influence (such as funding and funding formulas), they can and routinely do use their bully pulpit or their capacity to convene to lead practitioners and other state policymakers toward more equitable, sustainable solutions for all youth.

Data Systems. On the data front, one notable example is the Illinois state report card, adopted by its state board of education. The report card includes measures with utility for students, parents, educators, community members, and policymakers: achievement and achievement gap data disaggregated for students of different races, income, language ability, and disability; input variables such as per pupil expenditures, programs and extracurricular activities

by school, and the demographics of its educator workforce compared with its student body; and results of student, educator, and parent surveys. The five surveyed elements of Illinois's 5 Essentials Survey include reflections on the schools' vision for success; whether teachers are collaborating; whether the learning environment is safe, demanding, and supportive; whether the instruction is engaging; and the perceptions of the schools' effort to engage families. An analysis by the Consortium on Chicago School Research showed that schools that do best on these five areas are 10 times more likely to achieve substantial reading and math gains than schools that do well in just one or two areas and that improved student learning is significantly undermined by a sustained weakness in even one.[15]

Distribution of Funding. Use of data systems to advance transparency and informed decision making is essential, but states should also ensure schools have the resources to act on the course toward which the data points. By advancing two interrelated initiatives, Local Control Accountability Plans and Local Control Funding Formulas, California has been a leader in ensuring a fairer distribution of resources advance equity and excellence for all students. Enacted by the state legislature in consultation with the state board of education and other groups in FY 2013–14, the Local Control Funding Formula affords each district a base grant and then provides additional funds for students with greater needs (defined as low income students, foster youth, and English language learners). The law outlines that districts must improve or expand services for these students in proportion to the additional funds these students bring to the district and this provision was further clarified by the State Board of Education in January 2014 regulations. This new finance system simultaneously ensures greater accountability in addressing the needs of disadvantaged students and greater flexibility to districts in using funds to tailor services that meet their student needs (the previous system was based on the implementation of 48 highly-regulated categorical grants that provided little flexibility for districts to take systemic action to address student needs).[16]

> "The impact of working with parents and community partners in high-poverty communities can be even more pronounced than in the schools of their more affluent peers."

Partnerships. States can also provide tools to help schools and districts better engage partners. In Oregon, this included development and deployment of a business-community partnership toolkit. The toolkit provides guidance on how schools can develop partnerships to directly support personalized learning goals embedded within the Oregon Diploma. For instance, schools can enlist businesses to provide career-related experiences and other applied learning opportunities to students and that help develop key skills such as communication, critical and analytic thinking, technology use, and civic and community engagement.[17] Recognizing that deeper learning often requires work and experiences outside the classroom, states like Oregon are beginning to think about resources not just as funds distributed to schools but as relationships and individual and collective capacities within communities.

RIGOR

Wherever resources come from, advancing educational rigor must be at the fore of any investment. To elevate the prospects of students most often left behind, states must view an infusion of resources (and tools to better use those resources) as a necessary but insufficient step toward excellence and equity. Investment in education has been colored by biased expectations of what students can do and achieve based on their race, income, disability, and cultural background.[18] For states to move forward on an excellence and equity agenda, they must confront these histories and the skepticism and distrust they have bred for groups that have been most harmed by them. As Harvard researcher Jal Mehta notes, "It's on deeper learning proponents to argue the civil rights case for deeper learning—that joining the culture of power means doing one's own experiments and not just reading about experiments that others have done; such deeper experiences gives disadvantaged students the same opportunities to participate in the real world of the disciplines that the most advantaged students have long had."[19]

As work by Jeannie Oakes and other scholars attests, educational tracking is still a reality, with significant detrimental effects on many students, typically minorities and those with lower family incomes, who are less likely to be provided a college preparatory curriculum.[20] According to the Justice Department's Office of Civil Rights, factors other than student abilities dictate participation levels for a range of opportunities—from access to Advanced Placement (AP) courses to participation in the gifted and talented programs. These trends can lead to a broader problem, one in which students in particular groups internalize the expectations for their achievement. A broad body of research on education at secondary and postsecondary levels indicates that certain adult mindsets and stereotypes affect student performance, regardless of students' initial levels of ability.[21]

As schools and states move to overcome these entrenched realities, they can take advantage of technology and relationships that did not exist during the past civil rights and education reform movements. Technology can give students a vision

of what is possible like never before. In high-poverty and remote rural communities, for example, technology access has translated into greater access to dual enrollment, Advancement Placement, and other courses unavailable to previous generations of students.[22] Additionally, students themselves are calling for rigorous, relevant means of learning, and when schools do not provide it, some students are pursuing it through informal learning opportunities.[23]

Schools enjoying the greatest success in educating all students at high levels have taken proactive steps. For example, Big Picture Learning (BPL), an international network of 55 schools in 14 states, highlights 10 expectations all students should have of their education in a BPL school. These common expectations for the network's traditional and charter schools include challenging standards of excellence; immersion in authentic, real world problems where students apply knowledge to issues they find relevant; student voice and choice in identifying those problems; and significant intensity and duration of work to enable rigorous learning. The network pairs these expectations with clear structures to help students achieve them: authentic assessments of student learning, personalized learning plans, and postsecondary transition supports. This approach to rigor has yielded impressive results. Though schools in the network serve higher concentrations of low-income and minority students than their peer schools, they have significantly higher graduation rates, and 95 percent of BPL graduates are accepted into college.[24]

How can state policy help? State policymakers cannot simply undo the internalized stereotypes and biases that educators and they themselves hold. Nevertheless, there are concrete actions state boards can take to ensure their education systems as a whole are more accountable and can provide the higher, deeper rigor that too many students are denied:

Adopt clearer, deeper standards of learning. States can adopt higher, clearer, deeper standards of learning in math, English language arts, science, civics, and other disciplines that reflect the knowledge, skills, and dispositions all students need to succeed. They can ensure equal access to courses that reflect standards for all students, including English language learners and students with disabilities.

> "Students of color and low-income students receive fewer opportunities to engage in deeper learning than their white and more affluent peers."

Expand access to advanced coursework and work to ensure this coursework is more reflective of rigorous learning. States can expand access to advanced coursework such as AP, International Baccalaureate (IB), and dual enrollment—especially for traditionally disadvantaged students, and they can ensure these experiences reflect deeper learning.

Account for student learning. States can adopt a system of assessments (including statewide summative and instructionally informative performance assessments), along with multiple-measure accountability and improvement systems that factor in student subgroups.

These state actions will be neither easy nor straightforward. After all, states are espousing their educational values with these actions: What does success mean for students, and what is the culture to support that success? These are charged issues that require difficult conversations among policymakers, educators, parents, students, employers, and the communities in which schools reside. While the nuances will be different, the end must be the same: a commitment to high expectations for all students and the acceptance of shared responsibility to achieve it. A number of states have engaged in these difficult conversations and adopted policies that align with high expectations for all students.

Clearer, Deeper Standards. Maine is one such state. Following a number of conversations among parents, educators, SEA staff, legislators, and SBE members, the Maine legislature adopted a set of Guiding Principles that spelled out high student expectations.[25] These five principles included being an effective communicator, self-directed learner, creative problem-solver, a responsible citizen, and an integrative and informed thinker. To support this common understanding, these principles were integrated into standards for eight content areas (known as the Maine Learning Results), and the SEA created supports to help districts achieve these aspirations. These resources include videos of quality practice, district self-assessments, and connections to extended learning opportunities that support students in achieving the goals laid out within the Guiding Principles. By setting a common set of expectations for all students and then working toward systemic coherence, Maine is infusing its diploma with greater value.

Advanced coursework. Greater access to rigorous college preparatory coursework has been a focus for West Virginia. Its state board of education voted in 2008 that all high schools must offer a minimum of four AP courses or the IB program. The state also provides schools and districts technical assistance for expanding access to AP and IB courses, including tracking participation and success rates for students on school and district report cards and including these indicators in considerations for awarding schools exemplary status.[26] States that want to expand student access to rigorous coursework can emulate West Virginia's actions. They can also advocate for more courses like the new AP capstone course, which the College Board created to place greater

emphasis on interdisciplinary content and student capacity to engage in deeper learning. The product of state and educator advocacy, this course is designed to provide student voice and choice in learning and advance students' abilities in "research, argumentation, and communication skills that are at the core of college readiness and essential for lifelong learning."[27] In demanding more courses like it, states can help redefine what rigor means.

Accountability. There must be consequences for failure and support for continuous learning, or rigor means nothing. Rhode Island has moved to ensure that its accountability and improvement system focuses on equity and deeper learning. In order to graduate, every student has to complete at least two performance-based diploma assessments, which can include graduation portfolios, comprehensive course assessments, and exhibitions. In addition to this student-level requirement, Rhode Island holds schools accountable for student proficiency, growth, and gap closure on state tests for key subgroups.[28] This multiple-measures system is complimented by a diagnostic improvement system that analyzes a variety of indicators ranging from overall and subgroup performance to school climate and culture and district spending.[29] Through this comprehensive examination, the state is able to better identify the particular challenges a school is facing and direct resources accordingly.

EDUCATIONAL EXPERIENCES

In a perfect world, educational experiences that enable deeper learning would simply be a sub-bullet under the conversation of promoting educational rigor. But often it is not understood this way. Allan Bloom's Taxonomy of Learning (figure 1) delineates stages of learning—from remembering and understanding content at the foundational level to applying, analyzing, and evaluating content, and, finally, being able to use one's learning to create something new at the final stage. The taxonomy is a frequently used way to identify experiences across these stages. The National Research Council called the culminating stage educational transfer, which it defined as "the process through which an individual becomes capable of taking what was learned in one situation and applying it to new situations."[30]

Policies and practices that narrow students' educational experiences often undermine the learning process Bloom describes. A Center on Education Policy analysis published four years after passage of the No Child Left Behind Act found that teachers in schools—particularly those in schools receiving Title I funds—reduced the amount of time spent on science, civics, and other disciplines in order to focus more on tested subjects.[31] Other research has shown that students of color and low-income students receive fewer opportunities to engage in deeper learning than their white and more affluent peers.[32]

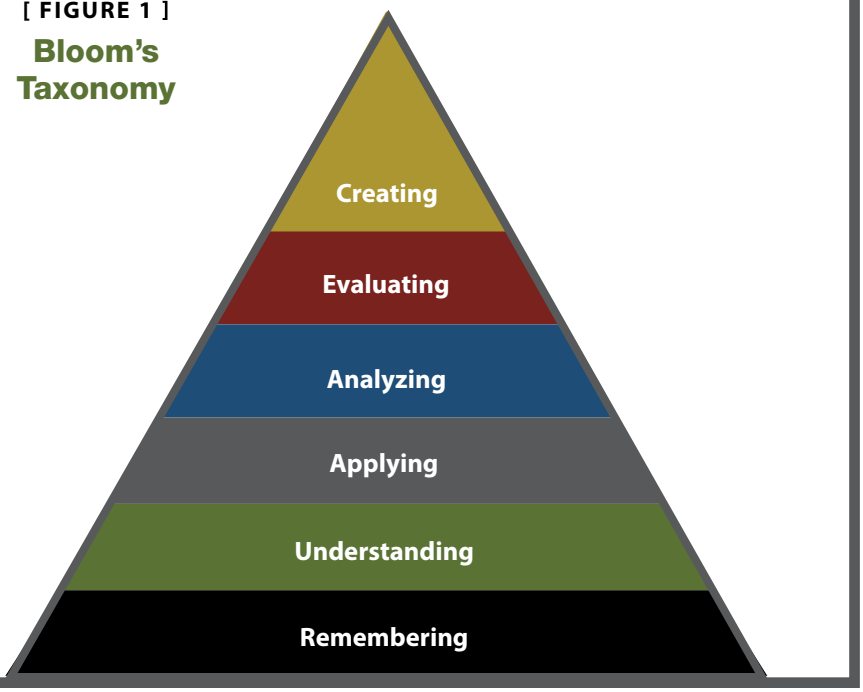
The effect of narrowed opportunities is corrosive. A recent Gallup survey showed that nearly half of all students in the nation's schools consider themselves not engaged or actively disengaged from school. Other studies find that engagement of diverse student populations demands a more personalized approach to learning that is often lacking in the nation's schools.[33] Regardless of its source, disengagement and lack of student voice is costly: Disengagement continues to be among the leading contributors to dropout rates, a crisis that in turn has significant health and economic ramifications nationwide.[34] Access to a well-rounded education, including the arts and extracurricular activities, contribute to more students remaining engaged and in school.

As with resources and rigor, incorporation of rich learning experiences faces barriers to student engagement and comprehensive education as well as assets for broadening these experiences. Trauma, language barriers, and discrimination could limit either access or students' capacity to fully benefit from educational experiences that lead to deeper learning. Some also argue that lack of foundational skills among students in high-poverty communities can be a barrier to a rigorous education and that a focus on deeper learning can distract schools from the achievement gaps that have riddled so many states and communities.[35]

It doesn't have to be an either-or:

[FIGURE 1]

Bloom's Taxonomy



Schools can provide youth with deeper learning opportunities without sacrificing content. All students have an innate curiosity that formal education often tends to stifle.[36] As Albert Einstein put it, "It is nothing short of a miracle that modern methods of instruction have not yet entirely strangled the holy curiosity of inquiry. For this delicate little plant, aside from stimulation, stands mainly in need of freedom." Schools serving high-poverty students can build on students' innate curiosity while also building problem-solving, resilience, and other skills that resonate with students like Caitlin Cheney.

Schools that facilitate deeper learning for all their students explicitly focus on strategies that help reduce barriers to this learning while enabling the assets that make it more likely. A study by the American Institutes of Research (AIR) highlighted some of these strategies. It compared 19 schools focusing on deeper learning approaches with 19 similar schools that were not.

The deeper learning schools were significantly more likely to pay explicit attention to building deeper learning competencies. These schools emphasized real-world experiences such as high school internships. Educators at these schools were trained and supported to personalize instruction, address individual student barriers to learning through learning supports, and get to know their students better through structures such as advisories and alternative scheduling.[37] A separate AIR study on these schools' outcomes found that students at the deeper learning schools outperformed their peers not only in measures of deeper learning but also on scores on international tests, statewide achievement scores in reading and math, and high school graduation rates.[38]

Provision of rich learning experiences may be the most "bottom up" of the three domains and the one state over which state policymakers have the least control. Deeper learning happens in relationships between students, educators, parents, and their communities. But state policymakers can create the conditions to reduce barriers to deeper learning and emphasize personalized learning:

> "Students at the deeper learning schools outperformed their peers on scores on international tests, statewide achievement scores in reading and math, and high school graduation rates."

- **Enable anytime/anywhere learning.** States can divorce academic credit from seat time to enable schools to provide more personalized learning while maintaining safeguards for educational rigor.

- **Promote experiences that lead to deeper learning.** States can provide supports and adopt requirements that enable personalized, deeper learning experiences for all learners.

- **Train educators to meet diverse student needs.** States can adopt educator preparation, professional learning, and support policies to empower educators to personalize learning and provide rich learning environments.

No one action will change things overnight. Despite the diversity of student needs, a number of states have reduced barriers to deeper learning, provided resources to schools to engage students in deeper learning, and built educator capacity to lead in this learning environment.

Anytime/Anywhere Learning. One of the most significant barriers to deeper learning that state policymakers can remove is the requirement that students earn credits for the amount of time they sit in a classroom seat. Systems in nearly every state tie learning to Carnegie Units, a fact that many argue confines learning to formal experiences inside a school building. The New Hampshire State Board of Education set in motion a timeline to have districts move to a competency-based system in 2005, making the "live free or die" state the first to change this paradigm. System components include a focus on student demonstration of mastery, defined competencies in key disciplines, expanded learning opportunities that take students outside the classroom, and a move to performance assessments that better capture and support higher levels of learning.[39] With sufficient attention to quality control, state policymakers and practitioners have argued that this system not only supports the state's educational excellence goals but its equity goals as well. The new system provides targeted supports for competencies that students are struggling with and enables students to advance only if they master a competency. (In the traditional model, students could fail to understand key foundational skills and still pass based on their age or completion of time in a course.)

Deeper Learning Experiences. A number of states have taken other steps to proactively advance deeper learning: either embedding these experiences in statewide capstone projects or providing resources that make these experiences more likely. For example, Maryland has long mandated capstone courses that call for student-driven projects that demonstrate civic competencies.

Other states provide resources for such experiences without mandating them. For example, as part of its statewide career and technical education initiative, Georgia provides districts with a Work-Based Learning Manual that details how districts and schools can provide significantly more students work-based learning opportunities that reenforce disciplinary knowledge and develop skills and experiences students need to succeed in careers. Vermont

and Kentucky provide resources to support personalized learning plans that help all students chart the knowledge and experiences necessary to achieve their long-term aspirations.

Educator Training. States must ensure educators are prepared to support such experiences if schools are to create a rich learning environment or all students. A recent report by the Council of Chief State School Officers and Jobs for the Future highlights relevant educator capacities:

- cognitive, which includes content knowledge and understanding of brain and human development;
- intrapersonal, which includes educators' abilities to foster a student growth mindset and high expectations;
- intrapersonal, which includes social, personal, and leadership skills to relate to students and colleagues, cultural awareness and competencies, and the ability to manage diverse classrooms; and
- instructional, which includes pedagogical techniques necessary to personalize instruction.[40]

States like Colorado have already incorporated a number of these competencies into state standards for professional teaching and learning. Colorado state standards for professional teaching include the knowledge to deliver relevant and interdisciplinary content, personalizing instruction to meet the needs of a culturally diverse student body, and taking responsibility for student learning growth.[41] The state has also moved to ensure new teachers have skills to personalize learning for students facing particular disadvantages. For example, Colorado State University's Access Project prepares candidates to implement a universal design for learning (UDL) strategy, which emphasizes assessing, representing, and engaging learning in multiple ways, particularly for students with disabilities. Moving forward, states have a unique opportunity to incorporate and align these competencies throughout their professional learning and support continuums, ranging from standards for educator preparation and mentoring to professional learning and evaluation.

CONCLUSION

Each state education system faces its own challenges to deeper learning, just as individual students and their schools do. Whether it's a shrinking state budget, high concentrations of foster youth or students with disabilities, or an outdated educator preparation system, each state must reflect on these challenges to promoting deeper learning in their high-poverty schools and marshal resources to address them. Beyond using direct policymaking authority, state boards of education can convene stakeholders, raise key questions to define a new vision for educational excellence, and devise ways to realize it.

States also possess significant assets, as the examples in this report attest. Whether it is a strong professional learning system, access to rigorous coursework, or significant investments in wraparound supports, states can begin from their base of assets to build out systems that better meet their aspirations for teaching and learning.

With the passage of the Every Student Succeeds Act, states have a new opportunity to forge an educational system that empowers deeper learning for all students. The magnitude of this endeavor demands that states make comprehensive changes that promote the cohesiveness of the system as a whole. It is not enough for a state to simply address one or two legs of the stool—resources, rigor, or educational experiences. Their policies must address each and account for the interactions among them. By making this commitment, states can show that equity and excellence will not be imposed from the outside in but are part of the mission of each state and its education system.

NOTES

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