

In Pursuit of Equality: A Framework for Equity Strategies in Competency-Based Education

Prepared for the National Summit on K-12 Competency-Based Education.

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Please consider this paper a draft. A final version will be prepared and published based on input from the participants at the Summit.

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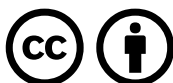
About *CompetencyWorks*

CompetencyWorks is a collaborative initiative dedicated to advancing personalized, competency-based education in K-12 and higher education. The International Association for K-12 Online Learning (iNACOL) is the lead organization with project management facilitated by MetisNet. We are deeply grateful for the leadership and support of our advisory board and the partners who helped to launch *CompetencyWorks*: American Youth Policy Forum, Jobs for the Future, and the National Governors Association. Their vision and creative partnership have been instrumental in the development of *CompetencyWorks*. Most of all, we thank the tremendous educators across the nation that are transforming state policy, district operations and schools that are willing to open their doors and share their insights.

About iNACOL

The mission of the International Association for K-12 Online Learning (iNACOL) is to catalyze the transformation of K-12 education policy and practice to advance powerful, personalized, learner-centered experiences through competency-based, blended and online learning. iNACOL is a non-profit organization focusing on research, developing policy for student-centered education to ensure equity and access, developing quality standards for emerging learning models using competency-based, blended and online education, and supporting the ongoing professional development of school and district leaders for new learning models.

**National Summit on K-12
Competency-Based Education**



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I. Introduction

The role of public education has never been more important – it is the bedrock of democracy. The failure to provide an equitable public education that enables equal access to opportunity unravels the American dream. Competency-based structures for education hold promise as uniquely powerful models for fostering equity, but only if equity is an intentional design feature of those structures.

Despite dramatic improvements in education over the last century, the one-size-fits-all, delivery-of-curriculum, time-based system simply doesn't work as well as needed. In fact, the traditional system was designed to rank and sort students through a combination of practices including A-F grades that rarely invited opportunity to revise and improve skills; grading policies that bolster or reduce grades based on behavior; tracking systems that set different expectations for students; and passing students on to the next level with Cs and Ds at the end of each year despite the fact that they had not learned what they needed for more advanced courses.

With the idea of a fixed mindset underpinning the traditional K-12 system – children were either labeled smart or not so smart, and nothing could change that – teachers played a powerful role in determining the future of their students. Furthermore, if students were already categorized as smart or not so smart, there wasn't much a teacher could do to shape the future of students. Add into this mix the ideas that girls, immigrants, children from families that worked in farms or factories, and Native American or African-American children either couldn't or shouldn't learn to high levels. The result? Only one-third of our eighth graders were performing at grade level or above in math and reading. Inequality was reinforced and inequitable educational outcomes were systematically produced. Efficacy and accountability of the teaching profession and schools were diminished.

The students who have been most harmed by the traditional system are those born into families without a college education and/or that struggle to make ends meet; children of color; children with disabilities who require some type of accommodation; and children who are new to our country or were raised in homes speaking a primary language other than English.

Across the country, educators and policymakers are coming to the same conclusion: the structure of the traditional system is a barrier. The premise of competency education is that the traditional education structure, which is designed to sort students, can be replaced with one that is designed for every student to succeed. When we design for ensuring mastery, we have to build around equity and draw upon the research that informs us about how students learn best.

If competency education is going to realize its promise, we must take responsibility for ensuring that each and every student benefits by mastering the skills they need to succeed, and that each and every student is learning, progressing, and on their way to building the competencies required for college and careers. Taking responsibility is the first step in establishing internal accountability. It is also the first step in creating a competency-based system that will produce greater equity. Educators and policymakers must pursue competency-based systems with eyes opened wide to the persistent threat of inequity. It requires vigilance to seek out and eliminate the implicit bias and inequitable distribution of resources that can undermine even the best-designed schools.

Yet, how should we think about equity in a personalized, competency-based system? The idea of comparing student achievement by subgroups based on tests organized around age is dreadfully inconsistent with the values and premises of personalizing to meet students where they are in order to help them reach high expectations and be prepared for college and careers.

Our challenge at the National Summit on K-12 Competency-Based Education is to explore, clarify, and develop recommendations on how to approach and improve equity within a personalized, competency-based system. The driving questions include:

- How should we define equity to be meaningful in a personalized, competency-based system?
- How can competency-based learning systems and schools make outcomes more transparent and take responsibility for addressing equity issues?
- What do we know about improving equity? What elements should be integrated into competency-based structures? What practices should be integrated into any classroom?
- How can we work together as a field to ensure that competency-based systems take full advantage of what we know about equity strategies to benefit all students, especially those who have been historically underserved?

This paper seeks to unpack the concept of equity, review key equity strategies that have been developed to serve historically underserved students, and offer an initial framework to launch discussion at the Summit. Please see the paper *An Introduction to the National Summit on K-12 Competency-Based Education* for a glossary of terms used in this paper.

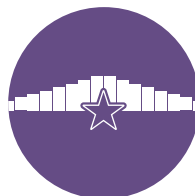
II. The Problem with the Traditional, Time-Based System

Before the topic of equity in a competency-based system is explored, it is valuable to unpack why the traditional system is a barrier to creating more equitable outcomes. By focusing on equal outcomes defined by state academic standards and one-size-fits all instructional strategies (although not equal funding, as [disparities in financial resources](#) continue to haunt the education system), the strategies used by states to implement No Child Left Behind (NCLB) exposed the traditional system for what it is: a sorting machine. Despite implementing a series of education reforms and programs, many schools struggle to produce better outcomes largely because the traditional system is not set up to do so. There are six primary flaws in the traditional system that can be corrected by redesigning the system for success in which all students achieve mastery.

These flaws include that the traditional system:



1 is based on a fixed mindset of ranking and sorting students to determine who is going to college.



4 has high variability in how teachers determine proficiency.



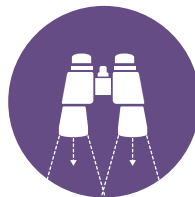
2 is time-based, and students advance to the next grade level after a year of schooling regardless of what they actually learned.



5 is organized for efficiently delivering content and assessing students' content knowledge.



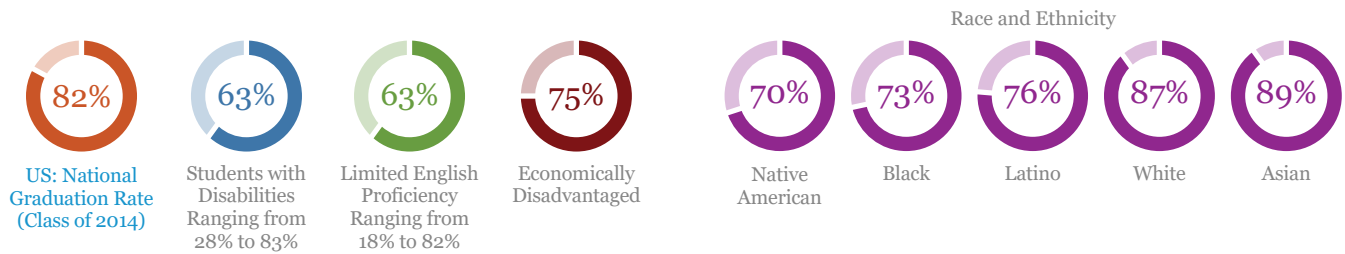
3 uses grading practices that have high variability, as they reward good behavior, assignment completion, and doing well on tests, not student learning.



6 is focused on a narrow set of academic outcomes and fails to recognize that student success is dependent on a full range of foundational skills and the application of skills.

The result of the traditional system is educational inequality. There are many ways to measure educational achievement. Graduation rates provide one insight into how the nation is doing in ensuring historically underserved students are receiving a high quality education.

U.S. Graduation Rates (2014)



Of course, traditional high school graduation rates tell you little or nothing about academic achievement. Time-based credits have allowed districts to graduate students who only possess middle school skills or worse. Transcripts listing courses say little about academic skills, and students bear the cost – 68 percent of those starting at public 2-year institutions and 40 percent of those starting at public 4-year institutions took at least one remedial course.¹

Another way to think about the equality of the education system is to consider achievement gaps. [Research at Stanford University](#) looked at achievement gaps and found that²:

- The most and least socioeconomically advantaged districts have average performance levels more than four grade levels apart.
- Average test scores of black students are, on average, roughly two grade levels lower than those of white students in the same district; the Hispanic-white difference is roughly one-and-a-half grade levels.

The technique to determine inequity and gaps in achievement that are most relied on today is the use of summative exams, designed to support accountability policies, based on grade level expectations. [NAEP's data](#) reminds us that only one-third of our students test at proficient or above in eighth grade math, reading, and science. Breathtakingly shocking is that 13 percent of black students are proficient or above in eighth grade math and 16 percent in eighth grade reading. Or is it really so shocking? If the traditional education system is designed to sort students rather than help all children learn, why would we expect results different than these?

Data about student learning generated through accountability tests tells us little about school performance, school improvement, or student growth. Schools that take the idea that it is imperative to meet students where they are might provide highly effective learning experiences to students who enroll in high school with fifth grade reading skills, and might also produce twice the expected growth. But it won't show up on state accountability exams if students are several grade levels behind, as students now reading at seventh grade level will still test on the exams as below proficiency.

Across the country, schools, districts, and states are replacing the traditional, time-based structure with a competency-based one to ensure students are reaching proficiency every step of the way – on each standard, in each unit, in each course, and in each performance level. Similarly, states and districts are realizing that the only way to get all students to college and career readiness is through greater personalization and maximizing student effort through greater agency, engagement, and motivation. Creating greater equity is at the heart of personalized learning and competency-based education.

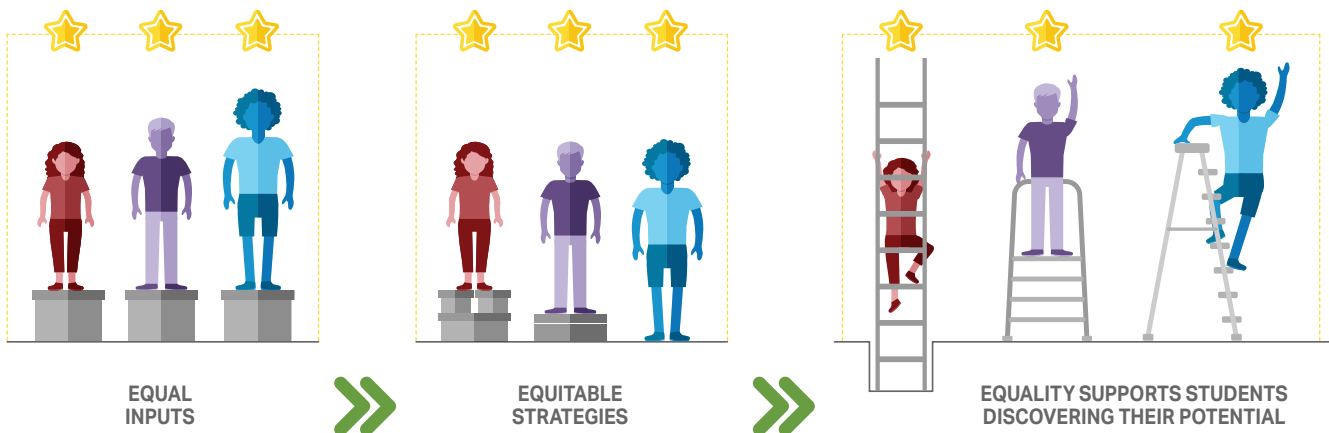
Yet the question, "What about equity?" is often raised to refer to the causes of the tremendous educational disparities in achievement and attainment: inequity in resources such as funding, teacher quality, curricular materials, technology, or facilities; implicit bias and patterns of institutional racism; and the necessity for intentional approaches to meet the learning needs of students. With so many different perspectives about inequity, it requires us to start by unpacking what equity means to ensure we are not talking past each other.

III. Equal Inputs, Equity Strategies, and Educational Equality

The vision for educational equality is a thriving, fair, and just system. In order to realize educational equality, we must openly acknowledge and then overcome the history of bigotry, discrimination, and oppression that has shaped communities and institutions, including our K-12 education system, and sadly continues to do so today. For three centuries, barriers have been busted one by one to increase access and quality of education for more students in pursuit of the American ideal of equality. Yet, much work is still to be done. Over the past twenty years, a new understanding of what we envision for a fair and equal education system has developed: our focus has shifted from thinking about equality in terms of equal or same – having the same inputs, having the same path, the same age children taking the same test on the same day – to providing students with what they need to succeed. Educational equality promises that every student will reach their potential. Such an educational system requires personalization, high quality, and strong equity strategies – those strategies necessary to ensure that all students, including those who have been historically underserved, fully benefit from the educational system. Equity assumes the same high expectations for all students, an expectation that is now captured in the phrase *prepared for college and careers*.

Equity refers to the strategies that need to be in place to serve diverse communities of learners and lead to learning at high levels of those common expectations. In committing to equity, districts and schools move beyond the idea that our education system has to have winners and losers. It is a commitment to ensuring that historically underserved students are successful by schools embracing a mantra of “whatever it takes” to ensure students are learning, progressing, and reaching proficiency.

The graphic below seeks to explain the way that the pursuit of equality has changed. The first image shows the hope that we could create equality through leveling the playing field by equalizing inputs. This is the idea behind the Elementary and Secondary Education Act’s Title I in 1965 that directed substantial resources toward low-income students. The second image captures the concept of every student meeting the same standards at the same grade level as introduced by the No Child Left Behind.



The third image captures the idea of a personalized, competency-based education system in which schools are designed so that students are successful in building lifelong learning skills, higher order skills that allow them to apply academic skills in new contexts, and their natural talents and interests. Students have ownership of their education and the skills to pursue learning at any point in their lives.

However powerful developing each and every student to their full potential is as an aspiration, it is also highly susceptible to different expectations being defined for different students. Given where we are today – as a country and as an ever-evolving education system – in the pursuit of the American dream that all people are treated equally and deserving of equal opportunity, we propose that we set our goal of equality toward preparing all students for college and careers: academic skills, higher order skills, and the lifelong learning skills needed to navigate the worlds of higher education and the labor market. At this point, it is far better to use a broad and calibrated set of standards for college and career readiness to drive our efforts to improve education and accountability. (See the paper *In Search of Efficacy: Defining the Elements of Quality in a Competency-Based Education System* for discussion on college and career readiness.) As schools and communities become more effective in implementing equity strategies, there will be much greater confidence that focusing on the potential of each student will result in lifting expectations for historically underserved students, not diminishing them.

The concepts of equity, fairness, equality, and justice are sometimes used interchangeably, sometimes with different nuances, and sometimes with significantly different meaning. Although these concepts will continue to evolve, it will be helpful to clarify, or at least try to clarify, the concept of equity in K-12 education and explore its meaning in a personalized, competency-based system.

After reviewing the many definitions that have been developed, the following definition from the [National Equity Project](#) is recommended to guide the conversation at the National Summit on K12 Competency-Based Education. The National Equity Project defines educational equity as³:

Educational equity means that each child receives what he or she needs to develop to his or her full academic and social potential.

Working toward equity in schools involves:

- Ensuring equally high outcomes for all participants in our educational system; removing the predictability of success or failures that currently correlates with any social or cultural factor;
- Interrupting inequitable practices, examining biases, and creating inclusive multicultural school environments for adults and children; and
- Discovering and cultivating the unique gifts, talents and interests that every human possesses.

In the next section, we will explore how the idea of education equity relates to competency education.

IV. From Sorting to Success

Educators turn to competency education because the structure is designed to help every student learn and have success. It starts with a deep commitment by leadership – school board, superintendents, and principals – that all students can and should learn. The structures that make up competency-education as described in the paper *In Search of Efficacy: Defining the Elements of Quality in a Competency-Based Education System* are designed for producing equity and excellence; however, inequity can still seep into the the system. It requires a deep and vigilant commitment to equity to eradicate bias and inequitable patterns. Furthermore, the elements of competency education must all be implemented in order to tap into the full power of the system. Those districts and schools that try to pick and choose will only be disappointed.

In this section, we explore how competency-based education is designed to produce greater equitable outcomes as well as possible places where residue from the traditional system can erode the potential power of competency-based education.

A. Competency-Based Education is Structured for Equity

CompetencyWorks worked with 100 leading innovators in the field to develop a five-part working definition of competency-based education:

- Students advance upon demonstrated mastery.
- Competencies include explicit, measurable, transferable learning objectives that empower students.
- Assessment is meaningful and a positive learning experience for students.
- Students receive timely, differentiated support based on their individual learning needs.
- Learning outcomes emphasize competencies that include application and creation of knowledge along with the development of important skills and dispositions.

Thus, this definition of competency-based education refers to a systems model in which (1) teaching and learning are designed to ensure students are becoming proficient by advancing on demonstrated mastery and (2) schools are organized to provide timely and differentiated support to ensure equity.

It is valuable to determine how competency education, through the lens of the five-part working definition, contributes to greater equity. Although this discussion is certainly not inclusive of all the ways that competency-based education challenges the practices of the traditional system that result in low achievement and inequity, it highlights many of the most important:

Definition Design Elements for Competency Education Systems	Equity Considerations	CBE: Design for Equity
Students advance upon demonstrated mastery.	<ul style="list-style-type: none"> • Expectations are clear and high for all students. • Schools meet students where they are and make sure they grow and progress. • Students must demonstrate mastery (the system doesn't allow gaps or low expectations). 	CBE includes equally high outcomes by advancing students based on mastery rather than age. Eliminates practice of passing students on with Cs, Ds, or with gaps in their skills. Teachers calibrate the determination of proficiency, look at student work, and should seek to uncover implicit bias.
Competencies include explicit, measurable, transferable learning objectives that empower students.	<ul style="list-style-type: none"> • Transparency enables fairness. • Students have information to help them manage their education. • Focus on deeper knowledge. 	The transparency in CBE districts and schools creates intentionality in instruction, empowers students, and changes the dynamics of the classroom. Teachers have agreement about the learning objectives and what proficiency looks like, helping them to target instruction and assessment. Students know exactly what they are expected to learn, what proficient means, and how they will be assessed. The dynamics of the classroom change, reducing the power differential: Education is no longer something done to students, they are active learners learning to take responsibility for their learning.
Assessment is meaningful and a positive learning experience for students.	<ul style="list-style-type: none"> • Assessment is part of the cycle of learning and generates productive feedback for students to correct misconceptions and improve skills. • Calibration ensures there is consistency in determining proficiency. • Assessment is aligned with depth of knowledge and provides opportunity for students to demonstrate learning by applying skills. 	Competency education requires a balanced system of assessments with a strong emphasis on formative assessment, productive feedback, and time for more practice so that gaps are closed and students make progress. Students should not have to take summative tests unless they have already demonstrated proficiency – the meaningless and potentially harmful practice of taking tests and being judged upon them without offering more support is eliminated.

Definition Design Elements for Competency Education Systems	Equity Considerations	CBE: Design for Equity
Students receive timely, differentiated support based on their individual learning needs.	<ul style="list-style-type: none"> • Instructional support and time are personalized so students receive support when they need it. • Schools are organized to have more flexibility to respond to students. 	Competency-based schools contribute to removing the predictability of education based on social or cultural factors by designing their schools so that every student is successful. This includes strategies to meet students where they are, differentiated instruction, and timely support to students. Furthermore, the concept of “not yet proficient” is introduced, with students able to access more instructional support and time in school, after school, and in the summer.
Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions.	<ul style="list-style-type: none"> • The definition of student success is broadened to include academic skills, higher order skills, and lifelong learning skills. • Instruction and assessment are aligned to learning outcomes. • Students are coached in all the lifelong learning skills in order to become self-directed learners. 	In CBE, the definition of student success is much broader than reading, writing, and mathematics. Students are expected to be college and career ready by graduation. This means they are expected to learn, and schools will nurture the lifelong learning skills (growth mindset, social and emotional skills, metacognition, and habits of work) that contribute to success in school and the workplace. Instead of simply giving points in the grading system for strong study skills, schools coach students in the necessary skills. Furthermore, the introduction of competencies requires that students learn how to apply their learning, engage in deeper learning, and build higher order skills.

Competency-based education and personalized learning go hand in hand. In fact, the next generation education systems are often described as personalized, competency-based education. The reason is simple: It’s impossible to get every student to master standards and make progress without personalizing education. Competency-based education assumes that schools will meet students where they are; personalized learning is an overall approach about how you do that, drawing on research about motivation and engagement.⁴

The personalized learning approach begins with students taking ownership of their education and takes into consideration the needs, strengths, and interests of individual students. In order to ensure that every student is learning and progressing based on mastery, educators must take into consideration where students are in their learning – academically, emotionally, and in their development as self-directed learners. Teachers differentiate learning as needed to ensure that students are building their foundational skills and making progress toward their learning goals.

In schools using personalized learning, students are active learners with choice in how they learn, voice to co-create learning experiences and express their own ideas, options to personalize their pathways, and leadership opportunities in which they can shape or contribute to their own environment. Schools invest in helping students build the mindsets and lifelong learning skills they need to be self-directed learners and engage in productive struggle, developing skills and strategies in learning how to learn successfully. Instruction is designed to meet students where they are, taking into account their prerequisite skills, mindsets, habits, and interests. Accountability becomes embedded into the system itself when there is consistency in validating proficiency based on student work, and pace and progress are carefully monitored.



Personalized Learning is “tailoring learning for each student’s strengths, needs and interests – including enabling student voice and choice in what, how, when and where they learn – to provide flexibility and supports to ensure mastery of the highest standards possible.”

- iNACOL, *Mean What You Say: Defining and Differentiating Personalized, Blended and Competency Education*, 2011

B. Equity Concerns Regarding Personalized Learning and Competency Education

This section seeks to identify potential issues related to problems that may develop in personalized, competency-based systems. Even with the best school design imaginable, there is always a concern that inequity will rear its ugly head. By identifying these potential issues, states, districts, and schools can create mitigating strategies and preemptively use data to look for early trends. It is important to remember that most, if not all, of these nine issues are also problematic in the traditional system. The difference is that competency-based schools make them transparent and take responsibility for addressing them. Districts and schools simply can't ignore these issues and still fully engage students in putting their best efforts forward, reaching mastery, and making progress.

1

Are Pace and Progress Closely Monitored?

The primary equity concern related to competency education is the fear that variation in pacing will mean that some students get left behind. However, the reality is that in traditional environments, gaps for students who lack core knowledge and skills already exist, and the time-based structure means these gaps only grow over time. What competency education requires is that we focus on students every day, giving them supports to stay on pace while still allowing them to have a variety of tempos in how they learn and ensuring they demonstrate mastery. The most developed competency-based schools monitor growth of students based on their learning trajectory, not just their pace on grade-level standards. Competency-based schools help students to set goals and teachers to reflect with students to identify gaps in skills that need to be addressed.

2**Are There Adequate Supports for Students to Ensure They Reach Proficiency and Make Progress?**

States, districts, and schools need to be thinking strategically about the most effective instructional strategies to help students with skill gaps (i.e., performance levels two or more levels below their expected grade level) to accelerate learning. Educators should engage in [action research](#) to identify the most effective evidence-based practices. In addition, districts and schools need to become more responsive to students who need additional support, including providing supports before, during, and after the semester. This will require different structures and budgeting strategies.

In competency-based education, students who are at or above grade level are also expected to progress even if it is to standards above their grade level. Thus, systems of supports in districts and schools need to take into consideration strategies to support 100 percent of the students.

3**Are Students Coached in the Lifelong Skills They Need to Develop Agency?**

Building student agency – the skills and mindsets to become self-directed learners – is an important element in implementing competency education, a feature of personalized learning, and an important part of college and career readiness. If schools do not invest in introducing protocols, practices, and tools for students to take responsibility for their education and fail to build the capacity for educators to coach students in lifelong learning skills (growth mindset, habits of work, social and emotional learning, and metacognition), students and teachers will be set up for frustration and possibly failure. If classrooms aren't designed for students to take ownership, teachers remain stuck in the traditional classroom management practices. If students aren't supported in developing the habits and mindsets, they will not put forth their best efforts and persist when they struggle in their learning.

4**Is the Process of Determining Proficiency Calibrated, Consistent, and Fair?**

In order to create both quality and equity, districts need to be consistent in how they determine proficiency, (i.e., they must calibrate the understanding of proficiency for standards and performance levels). When fully implemented, competency education should provide a structure in which proficiency is calibrated to maintain consistency in expectations and students receive adequate instructional supports to progress. But what if districts have different interpretations of what it means to be proficient at performance levels? What if they allow teachers to determine individually what it means to be proficient? States and districts play a critical role in establishing mechanisms for calibration. In particular, there should be efforts to create transparent mechanisms so that students and parents can easily check the level of rigor, as well.

5**Have New Definitions of Student Success that Lead to College and Career Readiness Been Established?**

Graduation expectations must include a broad understanding of college and career readiness that includes academics, higher order skills, and lifelong learning. If states and districts only set and measure academic achievement without including the expectation that students also need high level skills for problem-solving and to be self-directed learners, many students will find that they aren't ready at all to be successful in college or in the workplace.

6**Is Personalization Designed for Reaching Common Goals and Discovering Unique Talents and Interests?**

In a personalized, competency-based system, the goal is for students to build the common skills needed for college and career readiness while also building upon their aptitudes, discovering their talents and interests, and building a strong positive identity. There is, of course, a worry that patterns of inequity might creep in that could lead to pathways with different expectations. However, a quality competency-based structure should guard against variability by holding students to the same high standards even though students will require more or less

instructional support and time. Some competency-based schools are creating honors-level work that can be demonstrated in any class rather than within a specific honors course, allowing any student at any time to reach for the highest levels of learning. It is also important that the rigor or depth of knowledge of learning targets is calibrated and monitored to ensure that all students are offered equal opportunities for deeper learning.

There is no doubt that high schools are going to be challenged to help every student reach proficiency in every domain, given that a four year clock starts ticking once students enter ninth grade with skills that may range five or more performance levels. Districts and high schools need to start early in creating goals and trajectories that help students reach college and career readiness rather than waiting until twelfth grade and either graduating students with lower skills or tacking on additional years of schooling.

7

How Will Schools Ensure All Students are Growing?

Some are worried that achievement gaps will widen within competency-based education when higher income students with college-educated parents, more opportunities to learn, and more social capital will be able to leap forward, while other students flounder. Certainly, as described above, schools need to have in place scaffolding, opportunities to continue learning until proficient using multiple instructional strategies, and investment in building student agency. Furthermore, strong transition-to-college supports need to be in place for students who are first-time college goers. The most important thing to remember is that growth is the most important metric in competency-based education, not just proficiency at grade level. Students who are at lower performance levels may be shooting forward at rates of 1.25, 2, or even 3 levels per year but still not be at grade level proficiency.

Creating opportunities to learn and participate in enrichment activities in non-academic settings are also important. Arts, sports, and hobbies are all opportunities for students to both learn and reflect on their learning. More affluent students have greater access to informal mentors who support and encourage them, introduce them to a broad set of careers, and offer enrichment opportunities. Thus, intentional career and college exploration, opportunities to interact with people from a wide range of jobs and industries, and intentionally teaching students how to build and access a network will all be important.

8

Are Data Available that Enable Schools to Monitor Progress and Growth and Identify Students Who Need Additional Instructional Support?

If educational experiences vary, they may also create or exacerbate/increase patterns of inequity unless careful attention is given to monitoring student progress and outcomes as well as to providing the necessary supports for all students to achieve mastery. Currently, there are few information management systems that provide data on student learning trajectories. Most continue to be structured around grade-level or course-based standards. It will be much easier to ensure that all students are growing and progressing when student information systems can provide a more comprehensive look at student progress over time and across domains.

9

Have Schools Developed Strategies to Stay Focused on Measuring and Recognizing Student Growth Given State Accountability Systems that May Only Focus on Grade Level?

The federal and state requirements within accountability systems can pose a problem for competency-based systems by not recognizing progress when a student's starting point is outside of age-based grade levels. Two examples:

- A ninth grader reading at the third grade level at the start of the year reaches sixth grade level at the end of the year. However, the state accountability system will continue to mark the student as below proficiency despite high growth rate.
- An eighteen-year-old student re-enrolls in high school with four high school credits and graduates two years later. However, the student is not included in the school's "on-time" graduation rate and the district and school are never recognized for seeking to have 100 percent graduation rates through a strong re-engagement strategy.

The federal and state requirements within accountability systems can pose a problem for competency-based systems by not recognizing progress when a student's starting point is outside of age-based grade levels. They also hold the traditional time-based system in place, with teachers feeling it is only fair to cover the standards included in grade-level tests when it is terribly unfair not to help students learn the prerequisite skills they need to master the grade-level standards. Using learning progressions across the K-12 continuum would provide better transparency for measuring each student's entry point and the amount of growth over time. ESSA's focus on multiple measures provides the opportunity to include individual student growth indicators.

Given these concerns that inequitable patterns might undermine efforts to create powerful competency-based systems, the question facing us as a field is: ***What are the necessary equity strategies to ensure student success, and how do we monitor their effectiveness in a personalized, competency-based system?***

V. Developing Equity Strategies

The centuries of [struggle](#) toward equality have been a powerful journey of learning. Different strategies were developed to mitigate, correct, and overcome the different causes of inequality internal and external to schools. As districts make the transition to personalized, competency-based systems, it is important to fully integrate the most important high leverage strategies to ensure that diverse communities of learners receive personalized approaches that include effective equity strategies.

A. Challenges to Incorporating Equity Strategies

For the past three decades, our country has talked about educational equity in terms of achievement gaps of subgroups of students. This idea of labeling students and thinking about subgroups in monolithic ways is inconsistent with the concept of personalization, which seeks to understand students as developing and evolving human beings who are discovering themselves, shaping their environments, and are deeply capable of learning with the right supports. The field of education is making a shift from thinking about academic achievement based on academic deficits to one that wholistically meets students where they are in terms of academics, social and emotional learning, and developmentally.

This is not to say that we should stop monitoring district and school effectiveness based on subgroups: It is essential that as a country we hold ourselves accountable and do everything we can to overcome inequitable outcomes in our schools. Holding ourselves accountable by vigilantly looking at data on subgroups does not then mean that we must approach students as subgroups or provide instruction based on how they are labeled. In fact, districts and schools must draw upon research-based instructional strategies to provide each and every student with the support they need to succeed. In this next section, two dynamics are explored that challenge us to think beyond labels. Certainly, these points are important for traditional systems but are essential for personalized, competency-based ones.

Discovering Intersectionality of Educational Strategies

When speaking about equity, the focus has been on groups of students that have either been historically underserved (African-Americans, Hispanics, Native Americans, and Native Alaskans; students with disabilities; English language learners; and girls in math and science pathways) or who have unique circumstances that make the school environment ill prepared to help them thrive in school (LGBT students, homeless students, over-age and under-credited students, and students detained in juvenile justice systems or in child welfare). Essentially, this way of organizing how students' needs are identified established white, male, and upper-income as the norm and all others as subgroups. And that is a problem both in a personalized setting and as a way for thinking about equity.

In personalizing learning, attention is paid to the unique interests, aptitudes, and academic needs of every student in order to meet them where they are. Each student is, of course, many things and very likely to have evolving interests and identities. A student may have a disability and be African-American, male, and high achieving. Or a student might be white, male, from an affluent community, gay, and close to dropping out. An English language learner might be Native Alaskan, female, and have strong aptitudes for math. A homeless student might be a new immigrant from Pakistan, highly educated, and, as soon as they strengthen language skills, ready to take several AP exams. The fact that students are never going to be easily characterized by one label is exactly why personalized learning approaches are needed.

Personalized learning challenges us to treat students as unique individuals who are more than a subgroup label and create opportunities for them to have a role in identifying their strengths, interests, and the supports they need to be successful. It requires us to discover the intersectionality of the strategies that have been developed around each subgroup of students and to discover core equity strategies that help every student succeed. It also means that in personalized, competency-based schools, any student who may not be progressing at a meaningful pace, regardless of whether they are two performance levels below grade or two above, will receive attention and additional support. This does not mean we should stop monitoring achievement based upon subgroups. The accountability system introduced by No Child Left Behind forced schools to pay attention to subgroups of students and overall achievement gaps did narrow. It is imperative that districts and school performance continue to be monitored through subgroups, but in the classroom, students need to be understood as individuals.

In thinking about how inequity occurs, it will be helpful for future discussion to break it into three types of causes: the beliefs and attitudes of adults; systemic issues that impact students and communities; and availability of effective instructional strategies. Although this paper will not cover the first two in depth, and some may be outside the control of districts and schools, it is important to have awareness and to empower ourselves by creating common language.

A) Attitudes and Beliefs of Adults: There are reams of evidence that we each carry a set of attitudes and beliefs about other people in our society. In some cases, these attitudes and beliefs may be explicit. Yet all adults, including educators, carry some degree of implicit bias that shapes their interactions, opinions, and decisions. These biases shape how [educators set expectations](#), understand student behaviors, engage with families, provide feedback, grade, and think about the potential of every student.

Even in competency-based education, with its commitment to success for 100 percent of students, implicit biases may undermine student learning and school performance. Difficult to identify, implicit biases are best approached through a combination of personal responsibility for seeking out biases through collaborative teaching and calibration of proficiency levels for student work, and data that seeks to identify either individual patterns of teachers or school-wide patterns of a group of underachieving students. Students may internalize beliefs that result in lowering their self-esteem, their expectations of themselves, and their dreams. The goal is to create bias-free schools.

B) Systemic Issues: There are a host of equity challenges, primarily related to race and class, which are systemic in nature. Some may be within the direct control of the district; others may be beyond, rooted as they are in historic patterns, state and federal education policy (including funding), and nexus policies such as health, housing, and transportation. District and school leadership play a critical role in identifying and eliminating these patterns. Communities can also organize to create public demand for change. In some cases, policies may have been designed universally but have disproportionately negative impact, as demonstrated in the uneven implementation of exclusionary school discipline policies. Thus, it is always important to monitor how policies impact different groups of students.

Systemic issues that are outside the control of schools – whether they are exposure to daily doses of stereotypical images in the media, narrow exposure to career paths and professional networks, or trauma from witnessing or suffering from violence or policies of mass incarceration – shape the world in which students live. Equity strategies need to take this into account and design for expanding horizons, developing positive identity, and providing mental health services.

C) Instructional: Are students receiving the type of instruction and support they need and that will move them forward effectively? The field of education has learned a lot about how to help students with specific learning needs, and many of these strategies are in fact helpful to most students. For example, attention to language acquisition (including opportunity for inquiry-based activities that require students to talk about and practice verbal communication skills, literacy strategies across the curriculum, and introduction to academic vocabulary) are essential to support English language learners and helpful to all students. Similarly, all students can benefit from strategies that support students with disabilities, including personalized learning plans, learning experiences informed by Universal Design for Learning (UDL), and additional help in identifying the accommodations that are required in order to access learning and demonstrations of learning on an equal playing field. The opportunity, to be discussed below, is to transform these strategies that are often thought of as add-ons for specific subgroups of students into core equity strategies that are consistently used to benefit all students.

B. Creating a Unified Set of Instructional Equity Strategies

Although districts and schools will need to design equity strategies based on their student population and data on student learning and achievement, there are a number of core strategies that can benefit all students and have been developed based on helping historically underserved students learn.

How Should Instruction and Assessment Be Designed?

- Creating learning environments using the principles of Universal Design for Learning.
- Incorporating techniques of cultural responsiveness.
- Providing transparency about student performance levels and progress.
- Customizing additional instructional support and coaching in response to student needs.
- Empowering students through individual or personal learning plans in which students set goals and make plans for accomplishing those goals, as well as reflections with educators, students, and parents on accomplishments and where there is need for greater attention.

What Do Students Need to Learn to Be Successful?

- Coaching in developing strong growth mindset, social-emotional skills, and habits of work.
- Supporting students in understanding how they best learn, what types of accommodations and supports are needed, and how to advocate for themselves.
- Teaching literacy strategies across the entire curriculum.

What Types of Supports and Opportunities Should Be Offered?

- Broadening horizons so students discover the world, interests, and aptitudes.
- Building social capital through internships, mentorships, and teaching students how to build powerful networks.
- Providing wraparound services that address nutrition, mental health, transportation, child care, or other core services needed to support access and learning.
- Providing strong career and college development, including opportunities in the workplace and community, building networks, developing mentors, and transitional support through the college admissions process.

C. The Power of Data

The power of data cannot be underestimated in seeking out pockets of inequitable practices and spotlighting areas where educators, schools, and districts can learn and grow. Within the traditional, top-down systems, data is often considered something that you send on to the next higher level of governance rather than something that can be acted upon. In competency-based education, data is also a tool to change practices, reduce bias, and test our equity strategies to discover which are the most effective.

Seeking to uncover pockets of unmet need, unidentified talent, and bias (both personal and systemic) starts with asking questions such as:

1. In what ways may we not be meeting the needs of groups of students?
2. Are there trends or patterns that suggest that equity strategies are needed (from the perspective of state, districts, school, professional learning communities, or individual teacher)?
3. What is preventing us from achieving greater equality?
4. What equity strategies are needed (learner-based, belief-based, systemic) to improve the quality of education for students who appear to be under-achieving and/or underserved?

Multiple sources of data, including qualitative interviews and surveys, can help identify where inequity may be undermining programming and/or where stronger equity strategies are needed.

The challenge we have set forth is to move beyond programmatic or group-based strategies to create a catalytic set of equity strategies that every personalized, competency-based school can fully weave into the school design and instructional strategies. This requires shifting from programmatic interventions to personalized supports. This also assumes that the district supports and teachers are familiar with the core strategies to ensure diverse learners thrive.

VI. Creating an Equity Framework

The following are initial ideas about how an equity agenda that applies to competency-based education might be framed. As a first step, a set of guiding principles can serve to generate discussion, guide reflection, and trigger capacity building. The following is an initial cut on identifying the guiding principles that states, districts, and schools can use to create and embed equity strategies within their personalized, competency-based systems. There are eight core areas that must be addressed:

- 1 Culture of Learning, Safety, Respect, Trust, and Inclusivity:** The culture of schools are designed so that all students and adults, especially the most marginalized, feel safe and respected and can build trusting relationships that enable direct and productive feedback.
- 2 Student Agency:** Schools provide feedback, coaching, and opportunities for students to build the skills and mindsets needed to take ownership of their learning and become lifelong learners.
- 3 Transparency:** The cycle of learning is explicit and transparent so that students know what they need to learn, what proficiency looks like, how they will be assessed, and how they are progressing.
- 4 New Definitions of Success that Informs Graduation Outcomes:** Districts and schools engage the community in creating a shared vision of what students need to know and be able to do upon graduation. Districts and schools are designed around a well-rounded set of graduation outcomes including lifelong learning, higher order skills, and academic skills and content.
- 5 Pedagogical Philosophy:** Districts and schools are designed around shared and explicit pedagogical philosophies based on research in engagement, motivation, child/youth development, and learning sciences.
- 6 Responsiveness, Success, and Continuous Improvement:** Districts and schools use data on student progress to create agile organizations that can respond to student needs, drive continuous improvement, and ensure that students are successfully reaching proficiency each step of the way.
- 7 Consistency and Reliability:** The expectations of the learning objectives and rigor are calibrated with all students being held to the same high standards, including demonstrating mastery and fluency in the foundational skills.
- 8 Progress, Proficiency, Pace, and School/District Performance:** Student progress is measured by growth along a learning continuum with personalized strategies for setting the pace of learning towards graduation.

1. Culture of Learning, Safety, Respect, Trust, and Inclusivity

Rationale: *It is very difficult to learn if one doesn't feel safe and respected, have trust that educators fully believe in you, or feel that the system is fair.* In addition to the school setting, many students are dealing with trauma due to frightening experiences in their lives. The culture of the school must be designed to help students feel safe and respected enough that they truly belong so they can take risks in their learning.

Proposed Guiding Principles

- All policies and procedures nurture cultures of learning in which students feel safe and respected.
- Students have opportunities for choice, voice, and leadership within the school and school governance.

- Students see their cultural, racial, social class, sexual orientation, and gender identities acknowledged, affirmed, and reflected around them. Educators work with students through an assets-based, rather than deficit-based, lens that includes viewing language, culture, and family background.
- Educator and administrator workforce reflects the diversity of the student population and actively works toward attaining cultural competency.

2. Student Agency

Rationale: *One of the most transformative changes in personalized, competency-based education is the shift from expecting students to be compliant, passive learners to the responsibility of schools to help students have agency and become productive active learners.* Building student agency is a combination of mindset, meta-cognition, skills, and opportunities to practice, reflect, and receive feedback. Alongside their teachers, students can use their voice to create their own personal learning experiences.

Student agency is required for teachers to step away from the front of the classroom and work with students in more personalized ways. Student agency also changes the power dynamic in the classroom and requires teachers to think more deeply about how to organize opportunities to develop intrinsic motivation through choice, voice, and connections to the lives of their students. There are implications for classroom management practices and how teachers prepare, plan, and design learning experiences. Ideally, students see teachers making choices and providing supports, using gradual release, that empower students and increase agency – not simply handing over the reins.

Student agency, the mindset and skills that students need to take ownership of their education, requires structures that create opportunities for students to take responsibility, learn and practice, and take advantage of intentional coaching. Thus, there is an opportunity to identify and embed equity strategies in the core of the knowledge being developed about nurturing student agency.

Relationships: The relationship between teachers and students is a critical element for the learning process. Relationships need to be based on respect and an attempt to understand different perspectives. Biases and stereotypes can impact the process of forming relationships. Creating a strong school culture that values cultural responsiveness is essential in ensuring that when bias is exposed, it is an opportunity for learning and not of shaming.

Coaching Skills: It is important for schools to make explicit the skills needed for the growth mindset, social-emotional learning, and habits of work at appropriate developmental levels. In addition, students need opportunity to reflect, receive feedback, and access gradual release so they are successful in building skills. Teachers need support in building these skills and constructing their classrooms to create opportunities for students to practice these skills. Schools need to be vigilant to protect against attribution error.

Leadership Opportunities: Many schools create leadership opportunities in governance, school activities, clubs, and in the classroom. These are essential for skill development as well as creating a culture of respect. However, given that leadership opportunities may be limited, it is important to ensure they are offered to a range of students and that, over time, all students have opportunities for leadership roles. Furthermore, students need support in thinking about and developing their own leadership approaches.

Proposed Guiding Principles

- All policies and procedures are designed around enhancing a growth mindset and seeking opportunities for coaching students in lifelong learning skills (habits of work, metacognitive skills, social and emotional learning, self-advocacy, and navigating new environments).
- Transparent structures, practices, and supports are designed to support students in building lifelong learning skills.
- Students have access to culturally responsive curriculum, flexible pathways, and multiple opportunities to learn and demonstrate learning with common assessments and common outcomes.
- Students have opportunities to learn outside of school, to explore the world, and discover their passions and aptitudes.
- School strategies to nurture student agency are intentionally monitored to ensure that all students, specifically historically underserved and marginalized students, are receiving the feedback and coaching they need to build skills.

3. Transparency

Rationale: *The traditional education system is highly opaque with high levels of variability.* It is difficult to determine how well a student knows a subject or skills based on a recorded grade on their transcript. Standards may help set common expectations, but grading consistently against standards based on mastery raises a whole host of issues in the current system that must be addressed. Comparability, validity, reliability in assessments, and grading practices are important to ensure that students have truly mastered content and skills before they advance to the next level. If we hope to have more well-rounded students and strong graduation outcomes that ensure students are ready for college, careers, and life, schools need to take seriously the infrastructure that enables multiple pathways to learn.

Transparency helps build trust and can be catalytic in terms of empowering people to take ownership. In competency-based districts and schools, the goals, learning targets, exemplars of proficiency, and student progress are fully transparent. What are the key areas that must be transparent to empower students, parents, communities, and educators? What are the risks if they aren't transparent?

Proposed Guiding Principles

- The learning objectives, competencies, and standards are explicit and transparent.
- Districts are open and honest in all communication. Clarity of intentions, expectations, learning targets, and feedback ensures everyone has the information to advance their goals. (Adapted from [Building 21](#).)
- Grading practices and policies are clear, fair, and refer to student progress in their learning.

4. New Definitions of Success that Inform Graduation Outcomes

Rationale: *As states and districts reflect more deeply on what it means to prepare students for college and careers, graduation expectations are beginning to expand to include academic skills and knowledge; higher order skills needed to participate in problem-solving at the workplace, on college campuses, and in civic matters; and the ability to be self-directed learners who can engage in lifelong learning.*

Proposed Guiding Principles

- Student success is broadly defined to include academics, lifelong learning, higher order skills, personal interests, and preparation for successful transition to college and careers and citizenship (democratic decision making).
- Multiple measures of student success are used to provide feedback on school performance.
- Habits of work or desired behaviors are positioned as durable skills that benefit students outside of school.
- Districts and schools are designed to ensure that students have the opportunity to apply their skills and develop higher order skills.

5. Pedagogical Philosophy

Rationale: Pedagogical philosophies must draw upon research of teaching, learning, engagement, and motivation as well as incorporate strategies for serving diverse communities of learners.

Research on Brain Development, Learning, and Teaching: Research shows that students have much more potential for learning from birth to adolescence than has ever been understood before. All students can learn, even though they may acquire knowledge in different ways and different timeframes. Emotions are now understood to be part of the learning process. Thus, it is essential to help students learn how to learn and to manage their emotions.

Learning can be fostered by creating cultures of learning and strong relationships, and by offering opportunities for active engagement, challenging tasks, and frequent and formative feedback. Building higher order skills – such as analysis, problem-solving, and creativity – requires opportunities to apply and adapt skills to challenging problems in new contexts.

Research on Motivation and Engagement: Mindset about whether intelligence is fixed or can grow based on effort shapes how humans learn. Fixed mindsets are limiting; growth mindsets are enabling. When students understand themselves as having agency and choice, they begin to own their learning and are more motivated and engaged. Helping students to develop intrinsic motivation creates resilience that can be sustained as they become more independent learners. Mistakes become an inherent part of the learning process rather than an outcome. The social context of learning and relationships can engage students. Creating environments in which success is the only option breeds continued self-efficacy, which influences esteem, attitude, and motivation.

Students who have developed learned helplessness or counterproductive protective strategies need specific approaches to “undo” the damage, including developing a growth mindset, building resiliency and perseverance, and accessing strong social and emotional learning strategies. When students have spent extended years internalizing an identity as a “non-learner” or “non-achiever,” there are habits and mindsets that need to be dismantled and reconstructed so they feel safe enough to take the risks they need to engage as learners. While increased voice and choice works well to engage students who perceive themselves as learners, it is not sufficient for older learners who no longer believe they can be successful in school. For these students, it is necessary to thoughtfully build strength-based scaffolding that helps them develop an identity as a successful, competent learner who knows how to tap into a growth mindset.

As districts become competency-based, they engage in a process that clarifies their pedagogical philosophy (the theory of learning and teaching that drives school and instructional design). A school or district that is clear on its pedagogical philosophy can demonstrate consistency in its instructional practices and support educators in building capacity in the core knowledge and skills. If they are already clear on their pedagogical philosophy, implementation of personalized, competency-based education can be streamlined and accelerated.

Proposed Guiding Principles

- Pedagogy is based upon a growth mindset and must take into consideration that students start with different sets of academic skills, social and emotional skills, and life experiences.
- Pedagogy is designed to meet the needs of diverse learners. It is learner-centered and culturally responsive, including, but not limited to, communication of high expectations, active learning teaching methods, student-driven discourse, and small group instruction.
- Learning environments are designed using UDL and literacy strategies are taught across the curriculum.
- Pedagogy is designed to build self-directed learning skills.
- Pedagogy is designed to ensure students have opportunities to apply learning.

6. Responsiveness, Success, and Continuous Improvement

Rationale: *In the traditional model, students receive extra supports, interventions, and access to programs after they fail.* Programs vary across schools, and not all students can access what they need when they need it.

In learner-centered schools, the capacities to serve the diverse needs of students are fully integrated into the school design, core pedagogy, and instructional practices so that students are receiving the supports they need every day. Furthermore, competency-based schools – in their commitment to 100 percent of students succeeding – should be constantly engaging in reflection and continuous improvement.

Proposed Guiding Principles

- Data is available and used to identify individual students not making adequate progress (in the lifelong learning skills, academic skills and standards, and higher order skills), support evidence-based approaches, monitor effectiveness of support and intervention strategies, and catalyze continuous improvement to improve effectiveness of instruction, services, and school design.
- Teachers, paraprofessionals, and case managers have opportunity for collaboration, learning, and planning.
- Schools and teachers have autonomy to respond to the changing strengths and needs of students and to tailor learning experiences to needs of students.
- Schools address gaps in learning.
- Districts and schools have the autonomy to use school finances and resources flexibly in response to student assets and needs.
- Resources are distributed to maximize the number of students who gain one or more performance levels per year and to ensure that those students who are two or more performance levels behind their grade levels are prioritized for additional targeted support.

7. Consistency and Reliability

Rationale: *One of the features of the traditional system is a high degree of variability.* The variability is produced by teachers working in isolation; A-F grading systems based on behaviors, assignments, and summative tests; and different expectations for students within and across schools.

Consistency in competency-based education systems can be achieved by evaluating student outcomes against a constant – a standard with rubrics clearly outlining expectations for what evidence is needed for successful outcomes. Scoring proficiency is done through calibration of what proficiency looks like and rubrics with sample evidence of student work. There is transparency for the learning targets and how proficiency is determined. Formal systems, such as moderation processes, are developed to build and ensure inter-rater reliability of scoring. Student progress is measured based on outcomes demonstrating proficiency and mastery.

In competency-based schools, the systems of assessments have more emphasis on formative assessment (assessments for learning), transparency of learning targets, and how proficiency is determined. Processes and formal systems are developed to build educator capacity and to ensure inter-rater reliability. Finally, development, selection, and alignment of assessments ensure students develop higher order skills.

Proposed Guiding Principles

- States, districts, and schools co-design policies and practices to ensure that levels of proficiency and mastery (application of the skills and knowledge) are calibrated to state standards and are fully transparent.
- Teachers engage in joint scoring of student work to ensure inter-rater reliability.
- Teacher-generated performance assessments are strengthened by engaging in task validation protocols.
- Transparency in grading provides feedback on student progress and is designed to recognize and monitor growth with improved consistency and reliability.

8. Progress, Proficiency, Pace, and School/District Performance

Rationale: The issue of proficiency, progress, and pace challenges everything we know and think about schools and how they operate within the traditional, time-bound system. In competency-based districts and schools, attention is paid to where students start on the continuum of learning, which co-design trajectories are being used, and how they plan to monitor growth and pace.

As described below, the most important equity strategies in a competency-based system are monitoring and rapidly responding to students in terms of growth, with special attention to any students not achieving a gain of at least one performance level per year. A second equity strategy is to ensure that all students have the opportunity to apply their learning to challenging contexts. The complicating factor is that many schools continue to organize learning around grade-level standards rather than creating pathways that take into account students' starting performance levels.

The following discussion explores the issues of progress and pace.

Monitoring Student Growth and Progress

How do we know a student is learning and if they are making progress? Although the education field treats this as an operational issue, it is equally a philosophical one. There are many aspects to this question, but only one is repeatedly raised in concerns of differential treatment of students: Is progress solely defined by whether students have achieved proficiency on grade level standards or is it based on individual students' trajectories along learning progressions? Competency-based schools are seeking to build the capacity to actually monitor growth of individual student learning that increases transparency, reinforces the process of learning and can inform internal accountability. The discussion below outlines different ways of thinking about growth of learning followed by a discussion on pace.

One of the factors that has to be considered is how schools think about where students start:

- **Where Courses or Semesters Start:** Some schools think about students as starting at the same place, beginning a course or a semester assuming that all students will complete a set of standards, even while fully acknowledging that students have different skills. Teachers teach to grade-level standards and use scaffolding that builds access to the grade-level content. However, this is often done without the commitment to helping students fill the gaps in their skills. There is little incentive in current systems to ensure that all students who are struggling have access to scaffolding, supports, and interventions to gain the prerequisite skills needed to access the grade level standards.
- **Where Students Start:** There is another way of thinking about progress. This starts with the student's individual progress on a learning trajectory based upon a K-12 continuum of learning. This model recognizes that students start at different points, and teachers meet them where they are with the instructional strategies they think, in their professional judgement, will work best. This may include scaffolding to make learning processes explicit, organizing instruction at performance levels, or anchoring to grade level standards with strategies to build prerequisite knowledge. As districts take greater advantage of competency-based structures and/or focus more on skills, there is also opportunity for more student-directed and non-linear approaches to learning. This discussion will be covered in the *Meeting Students Where They Are* paper.

Given the importance of ensuring that students are learning the knowledge and skills required for successful outcomes at graduation, information management systems must enable districts and schools to monitor and record student progress in knowledge and skills along a continuum of learning toward successful graduation (rather than just with traditional grades within courses or semesters).

Pace: Monitoring Growth Over Time

Measuring student achievement based on grade-level standards (as currently used in the accountability system) is a very valuable indicator, as it provides feedback if students are on a course toward meeting graduation expectations and, if not yet proficient, can trigger important conversations about building a trajectory that will get them there.

Pace, the amount of individual student growth divided by an amount of time, is an even more important indicator, as it indicates whether students are adequately progressing along their trajectory – and, if not yet proficient, students receive additional support. Pace is a construct that can be used as a way of determining if students are getting enough instructional support, discovering if patterns of inequity are undermining learning or teaching, and as a construct to analyze effectiveness of strategies. A student may prefer to go deep into new content or skill building, taking time to fully understand, before completing learning activities. Others may zip through activities until they hit a wall and then slow down. Pace isn't solely about acceleration, as these are simply the rhythms of learning. Our equity concerns are focused on ensuring students are on a pace that will ensure success, including opportunities for deeper learning, having the supports they need when they need them, and the ability to move on when ready.

Pace is an important mechanism to monitor progress in a personalized, competency-based system. It can be used to develop and monitor personalized learning plans as well as monitor progress over a period of time. In setting personalized learning plans, pace is a powerful indicator to identify the students who need attention, not by label, but by their progress or lack thereof. Pace is also a factor in strategizing how students will move from where they are toward their goals. The pace of learning becomes more important when students enter high school with gaps in their skills. Although in some states students may take advantage of extended graduation with an additional one or more years in high school, turning eighteen is an important developmental and cultural benchmark for the transition to young adulthood. Most students would prefer to graduate with their peers. Thus, it is reasonable to set a goal, but not a rule, for graduation by eighteen. Thus, districts need to think strategically about offering more learning opportunities before the fourth year of high school to help accelerate pace rather than depending on additional years of learning. Thus, pace also informs districts and schools about their design and calendars to meet the needs of students.

Progress: Grading and Scoring Proficiency and Mastery

Although masters of any craft will argue that they are always still learning, the phrase mastery suggests a combination of proficiency, metacognition about the skill, and the ability to transfer the skill to new and challenging contexts. In fully developed competency-based systems, educators use a variety of scoring techniques, three of which are described here.

- 1** **Depth of Knowledge:** In models that use depth of knowledge to design scoring rubrics, often using a score of 1-4, the standard is set at Level 3 depth of knowledge (such as compare), and a 4 indicates the higher level (such as analysis). The challenge related to concerns about inequity is whether all students have opportunity to participate in Level 4 learning opportunities.
- 2** **Relationship to Achieving Proficiency:** Another approach to rubrics indicates how close students are to reaching proficiency (emerging, developing, and proficient). In this model, Level 3 is usually set as proficient and Level 4 as something that suggests “exceeding proficiency” or mastery. In some schools, honor classes are eliminated and Level 4 is recognized as honors-level work that any student can achieve if they are willing to engage in a more enriched, challenging set of learning activities. This is an important step forward toward equality, as honors courses are a remnant of the tracking systems of yore.
- 3** **Spiraled Skills:** A third model used in schools focusing primarily on skills rather than content include spiraled rubrics, in which the highest level is in fact the lowest level of the next performance level. This model recognizes where students are in their performance levels and clearly monitors their growth. However, it is ill-suited for schools that are more content-focused or organized to cover the grade-level standards without explicit recognition for where students are in their learning continuum.

The issue of equity becomes quite complex in thinking about pace, depth of knowledge, and the relationship between achieving proficiency.

First, is it fair to expect historically underserved students to learn at a pace faster than one performance level per year (1.0) even though that is what is required to help students who start at a lower performance level get on-track to graduation? Is a rate of 1.25, 1.5, or 2.0 performance levels per year a reasonable expectation if adequate supports and opportunities are provided? If a rate of 1.25 is used as an expected pace for students who are off-track, it will take four years to gain an additional performance level. Second, do we expect a pace of 1.0 for students above grade level? If so, districts need to take the ceiling off of grade levels to allow students to pursue more advanced courses, dual enrollment, or certifications. It may also mean that we can have more students on or above grade level without substantially reducing the race/income achievement gaps. Third, is pace only used in determining proficiency on academic standards? Are there developmental benchmarks that might identify when students need additional supports for build higher order skills, social and emotional learning, metacognition, or self-directed learning skills?

If schools continue to be restricted to age-based cohorts and classes organized around coverage of grade-level standards, those students who may have gaps or whose zone of proximal development is at an earlier performance level are disadvantaged as they are in fact learning more (i.e., over a longer span of the continuum of learning). They are learning both prerequisite skills at lower performance levels and grade level standards. Thus, greater growth may take longer or students may be growing at a faster rate. Schools must be very careful about labelling students as faster or slower, as their actual growth may be substantially different.

Perhaps the most important equity strategy in a competency-based system is monitoring and rapidly responding to students in terms of growth, with special attention to any students not achieving at least a gain of one performance level per year. A second equity strategy is to ensure that all students have the opportunity to engage in inquiry-based learning (project-based, deeper learning, extended learning in the community) in order to apply their learning. The complicating

factor is that many schools continue to organize learning around grade-level standards rather than create pathways that take into account students' starting performance levels. It is still important to monitor the percentage of students who are at proficiency or above on grade levels, as this provides information about how many students are on-track to graduation within the four years of high school.

One of the important equity issues is that it is possible that those students who require more time may be pressured to or desire to "move on" when reaching Level 3 and never have the opportunity for reaching Level 4. Another equity issue is to ensure students have the time or opportunity to demonstrate mastery through a performance or performance task to provide evidence of student work and not just rely on quizzes and tests.

Given the granularity of standards used by many schools, there are also questions about the viability of offering Level 4 or application of skills to every standard. In order for students to develop higher order skills, they also need opportunities for inquiry-based learning, including project-based and real-world learning. Some argue that it is better to build time into schedules for robust, inquiry-based, interdisciplinary learning problems that allow students to apply a number of skills and content toward complex problems. Deeper learning should not be something that comes after a student becomes proficient; it should be embedded into the design of learning experiences, such as through the instructional strategies, intersessions, capstone projects, or extended learning in the community. In this way, all students, no matter their performance levels, can have the opportunity for learning how to apply skills.

A final note about the equity issues related to Level 4 learning: The way that students demonstrate higher order skills may be influenced by culture and intergroup dynamics. Culturally responsive education strategies are critical to ensure that students feel safe, respected and fully supported in making connections and analysis that reflects their life experiences.

Proposed Guiding Principles

- Every student has the opportunity to apply skills and engage in deeper learning.
- Student achievement recognizes growth rate and level of proficiency/mastery.
- Culturally responsive education strategies are in place to ensure that diverse communities of learners are fully supported.
- Student learning is monitored along a continuum rather than completion of grade-level standards within a year or course.
- Data is used to monitor student growth in academic domains, success in deeper learning/higher order skills, and developing lifelong learning skills. This includes monitoring growth over time and on-track indicators.

VII. Charting the Course

By the end of the National Summit on K-12 Competency-Based Education, we hope to be able to provide guidance and/or recommendations for how we can ensure that equality is not just rhetorically at the heart of competency education, but actually producing greater achievement for historically underserved students and greater equity in terms of overall outcomes. Below are a few examples of actionable steps that are needed.

Discussion: What are your reactions to the ideas below? What other steps can be taken? What is needed to turn them from ideas into action?

Design for Equity

- **Strengthen Equity Strategies in Models and Implementation:**
 - » School designers and technical assistance providers should be explicit about how their approach and model takes into consideration equity strategies.
 - » Professional learning should provide an overview for designing personalized, competency-based structures that highlight embedding equity strategies into design. This can include school design, pedagogy, operations (scheduling and calendars), grading practices, and disciplinary policies.

Consistency and Reliability in Determining Proficiency

- **Calibration:** Districts and schools should co-create mechanisms to calibrate proficiency on core academic skills and higher order skills.

Processes and Metrics

- **Information Management Systems:** Information management systems need functionality around student-centered continuums of learning that capture student growth over time, depth of learning, student evidence with portfolios, and the ability to create sets of desired management reports to support short-term response to students and longer-term continuous improvement. (See [Student-Centered Learning: Functional Requirements for Integrated Systems to Optimize Learning](#).)
- **Process Indicators:** Continuous improvement often seeks to examine processes to determine effectiveness. Districts and schools should identify processes and decision-points around student learning and examine their impact on proficiency, pace, and progress.
- **Metrics:** Measuring academic grade-level proficiency and the number of students below and above is essentially an on-track indicator that students are learning at a rate that will prepare them for college/career readiness by the end

of twelfth grade. A project should be developed to clarify the metrics that are needed to monitor proficiency/mastery, progress, and pace. Another project is needed to clarify measurements other than academics to monitor development of lifelong learning skills. Finally, a project should be developed to examine other ways other than the GPA to predict and monitor success in college.

- **Performance-Based Assessments:** The field should assess the status of the capacity for assessment literacy, including formative and performance-based assessments. Assessment literacy including the selection, development, and design for performance assessments as well as professional judgment on scoring evidence of student work with comparability, reliability, and validity are important capacities to build and strategies to develop and expand into every district and school.
- **District Capacity:** Districts and educators need to be supported in building their capacity for data analytics (technology, analytic skills, managerial approaches, and communication including data visualization) to support evidence-based interventions, continuous improvement, and cost-effectiveness.

Leadership

Leadership is not simply by position, it is the ability to create and sustain conditions for operationalizing a school's core values and goals.

- **Demonstrate Respect, Build Trust, Empower Others:** Create opportunities for leadership to build and receive feedback on adaptive leadership strategies. When district and school leaders used a shared vision and clear guiding principles to drive decision-making, they also open the door to empowering others to make decisions. Creating opportunity for educators and students to have input demonstrates respect for their perspectives and builds trust.
- **Hiring:** School board hiring processes should include interviewing superintendents on demonstrations of addressing inequity, knowledge of equity strategies, and of improving equality within systems. Similarly, superintendents should consider the same in hiring principals. Equality starts with school boards and their commitment to hiring superintendents who have the skill and courage to identify and challenge inequity and inequitable practices. Diversity of staff should reflect that of the student population.
- **Personal Accountability for Overcoming Bias:** One of the first steps leaders need to take is to become accountable for challenging their own bias. This can include undergoing race/racism awareness training, looking at problems of practice around bias and race as a team, accessing tools to challenge implicit bias, examining their own networks to ensure they reflect diversity, and performing a self-assessment on their knowledge as it relates to historically underserved students. Educators at all levels of the system should take responsibility for identifying and managing their own bias through learning, dialogue, and formal feedback. Professional learning communities can play a powerful role in helping to identify and address personal bias through data on student learning, reviewing and enriching units, and scoring student work.

VIII. Conclusion

Our country is at a turning point in its understanding of itself as an inclusive nation based on a commitment to equality (or not) and in its commitment to creating an education system designed for all students to be successful (or not). Personalized, competency-based environments have the ability to empower individuals and enable educators to disrupt the historical dynamic of sorting students and introduce one in which all students are provided the opportunities and supports to grow, learn, and discover their passion and potential focused on 100 percent of students (including those that have disengaged without a diploma in hand) to achieve mastery. Competency-based structures without personalized approaches or vice versa will only provide part of the solution. When implemented together with a strong focus on equity and justice, with fidelity, and with a commitment to continuous improvement, these approaches can support all students to reach high levels: by engaging, motivating, and differentiating instruction and support within structures that provide greater responsiveness, consistency, and reliability.

The guiding principles and action steps are certainly not the final steps in the centuries-long struggle for equality. They are just steps in what is hopefully the right direction. By creating a framework, we as a field have a place to collect and share our knowledge about how to improve equity in personalized, competency-based systems. It is very much up to the adults in the system, from teachers to federal policymakers, to take responsibility to learn as much as we can about improving equity and holding ourselves accountable for putting it into action. We must live and breathe equity in our daily lives.

Resources on Educational Equity

General

- [Leading for Equity: Opportunities for State Education Chiefs](#) by CCSSO
- [The Past and the Promise: Today's Competency Education Movement](#) by Cecilia Le, Rebecca E. Wolfe, and Adria Steinberg; Jobs for the Future
- [Educational Equity: What Does it Mean? How Do We Know When We Reach It?](#) by Center for Public Education (NSBA)
- [Inequality Matters: Framing a Strategic Inequality Research Agenda](#) by Prudence L. Carter and Sean F. Reardon; William T. Grant Foundation
- [Patterns and Trends in Racial/Ethnic and Socioeconomic Academic Achievement Gaps](#) by Sean F. Reardon, Joseph P. Robinson, and Ericka S. Weathers; Handbook of Research in Education Finance and Policy
- [Office of Civil Rights Dear Colleague Letter on Equity](#) by Office of Educational Technology, U.S. Department of Education
- [Equality of Opportunity: Definitions, Trends, and Interventions](#) by Richard V. Reeves and Isabel V. Sawhill
- [Advance Equity: A New Dialogue Series on Equity and Inclusion](#) by New Profit
- [Rigor, Relevance, Relationships: The Promise of Culturally Responsive Pedagogy in Mastery Collaborative Schools](#) by Yolanda Sealey-Ruiz, Ph.D., Teachers College, Columbia University
- [How States Can Advance Deeper Learning for All](#) by NASBE

Race, Racism, and White Privilege

- [Someone Has to Fail: The Zero-Sum Game of Public Schooling](#) by David F. Labaree; Harvard University Press
- [Two-Faced Racism: Whites in the Backstage and Frontstage](#) by Leslie Picca and Joe Feagin
- [Kids Don't Want to Fail: Oppositional Culture and the Black-White Achievement Gap](#) by Angel L. Harris
- [60 Years After Brown: Trends and Consequences of School Segregation](#) by Sean F. Reardon and Ann Owens; Annual Review of Sociology
- [Disproportionate Impact Of K-12 School Suspension And Expulsion On Black Students In Southern States](#) by Edward J. Smith and Shaun R. Harper; Center for Study of Race & Equity in Education, UPenn GSE
- [Equity Snapshot: The Intersection of Mastery & Culturally Responsive Education \(CRE\)](#) from Mastery Collaborative in NYC
- [The Evolution of Brown v. Board of Education Fact Sheet](#) by PBS
- [BROWN V. BOARD: Timeline of School Integration in the U.S.](#) by Teaching Tolerance

Socio-Economic Inequality

- [Equity in Competency Education: Realizing the Potential, Overcoming the Obstacles](#) by Matthew W. Lewis, Rick Eden, Chandra Garber, Mollie Rudnick, Lucrecia Santibañez, and Tiffany Tsai; RAND Education and Jobs for the Future

Students with Disabilities

- [Personalized Learning: Meeting the Needs of Students with Disabilities](#) by NCLD
- [Achieving Equity in Special Education: History, Status, and Current Challenges](#) by Russell J. Skiba, Ada B. Simmons, Shana Ritter, Ashley C. Gibb, M. Karega Rausch, Jason Cuadrado, and Choong-Geun Chung
- [Personalized Learning & Students with Disabilities](#) by the PTA
- [How Do We Ensure Personalized Learning is a True Equity Initiative?](#) By Ace Parsi and Maria Moser; Getting Smart

- [Equity Matters: Digital and Online Learning for Students with Disabilities](#) by Center on Online Learning and Students with Disabilities
- [Graduation Policies for Students with Disabilities Who Participate in States' General Assessments](#) by National Center On Educational Outcomes

English Language Learners

- [The Implications of Deeper Learning for Adolescent Immigrants and English Language Learners](#) by Patricia Gándara; Students at the Center
- [How Do We Ensure Personalized Learning is a True Equity Initiative?](#) by Ace Parsi and Maria Moser; Getting Smart

Inquiry-Based and Deeper Learning

- [Equal Opportunity for Deeper Learning](#) by Pedro Noguera, Linda Darling-Hammond, and Diane Friedlaender; Jobs for the Future

Funding and School Finance

- [Money, Race and Success: How Your School District Compares](#) by Motoko Rich, Amanda Cox, and Matthew Bloch; New York Times

Cross-Cutting Issues and Approaches

- [EdTech's Inequalities](#) by Audrey Watters; Hack Education
- [Rethinking Educational Equity in a Digital Era](#) - CoSN Digital Equity Toolkit, Keith Krueger, CoSN
- [America's Extreme Need for More Black Male Educators](#) by Dr. Larry Walker; Ebony
- [Why students need more Black and Latino teachers: an exclusive excerpt from José Vilson's "This is Not a Test"](#) by Chalkbeat

Assessment and Accountability

- [Comparability in Balanced Assessment Systems for State Accountability](#) by Carla M. Evans, Susan Lyons, & Scott Marion, National Center for the Improvement of Educational Assessment.
- [Addressing Accountability Issues Including Comparability in the Design and Implementation of an Innovative Assessment and Accountability System](#), by KnowledgeWorks, National Center for the Improvement of Educational Assessment, and the Nellie Mae Education Foundation.
- [Scoring and Evaluation](#), by the Stanford Center for Assessment, Learning and Equity.

International Resources on Educational Equity as it Relates to Personalized, Competency-Based Education

- [Equity and Quality in Education: Supporting Disadvantaged Students and Schools](#) by OECD
- [Thematic Indicators to Monitor the Education 2030 Agenda: Technical Advisory Group Proposal](#), by UNESCO

Endnotes

1. Chen, X. (2016). *Remedial Coursetaking at U.S. Public 2- and 4-Year Institutions: Scope, Experiences, and Outcomes* (NCES 2016-405). U.S. Department of Education. Washington, DC: National Center for Education Statistics. <https://nces.ed.gov/pubsearch/pubinfo.asp?pubid=2016405>.
2. Rabinovitz, Jonathan. "Local education inequities across U.S. revealed in new Stanford data set." *Stanford News*, 29 April 2016, <http://news.stanford.edu/2016/04/29/local-education-inequities-across-u-s-revealed-new-stanford-data-set/>.
3. *Why Equity?* National Equity Project, <http://nationalequityproject.org/about/equity>. Accessed 1 May 2017.
4. Eric Toshalis and Michael J. Nakkula. *Motivation, Engagement, and Student Voice. Students at the Center Hub*, <http://studentsatthecenterhub.org/resource/motivation-engagement-and-student-voice/>. Accessed 1 May 2017.

CompetencyWorks

CompetencyWorks is a collaborative initiative dedicated to advancing personalized, competency-based education in K-12 and higher education. The International Association for K-12 Online Learning (iNACOL) is the lead organization with project management facilitated by Metis-Net. We are deeply grateful for the leadership and support of our advisory board and the partners who helped to launch *CompetencyWorks*: American Youth Policy Forum, Jobs for the Future, and the National Governors Association. Their vision and creative partnership have been instrumental in the development of *CompetencyWorks*. Most of all, we thank the tremendous educators across the nation that are transforming state policy, district operations and schools that are willing to open their doors and share their insights.