

Designing for Equity:

Leveraging Competency-Based
Education to Ensure All Students
Succeed

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In 2017, the National Summit for K-12 Competency-Based Education brought together 100 leaders in competency-based education to provide insight on emerging issues in the field of competency education. As a result of the Summit, *CompetencyWorks* released [Quality and Equity by Design: Charting the Course for the Next Phase in Competency-Based Education](#) that summarizes strategies to advance K-12 competency education along four key issues: quality, equity, meeting students where they are, and policy. Each of these four key issues are described in more detail in a series of individual papers that build upon the discussion from the Summit. Descriptions, graphics and text may be reproduced while looking at concepts through different lenses. This paper is a revision of [In Pursuit of Equality: A Framework for Equity Strategies in Personalized, Competency-Based Education](#) that incorporates the discussions with Summit participants.

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About CompetencyWorks

CompetencyWorks is a collaborative initiative dedicated to advancing personalized, competency-based education in K-12 and higher education. 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 iNACOL is to drive the transformation of education systems and accelerate the advancement of breakthrough policies and practices to ensure high-quality learning for all.



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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 education holds promise as a uniquely powerful model for fostering equity, but only if equity is an intentional design feature embedded in the culture, structure and pedagogy.

Despite dramatic improvements in education over the last century, the one-size-fits-all, curriculum delivery, time-based system does not work as well as we need it to if we are going to ensure that all students succeed. In fact, the traditional system was designed to rank and sort students through a combination of practices: curriculum based on age without regard for students' previous experiences, grading policies that inflated or reduced grades based on behavior, educational pathways that set different expectations for students based on their perceived ability or identity, and promoting students to the next grade level with Cs and Ds at the end of each year without concern for the fact that they had not learned what they needed for more advanced learning.

When the belief in immutable intelligence was an unquestioned assumption underpinning the traditional K-12 system, children were either labeled smart or not smart, good students or not. Different expectations were set for students. Teachers played a powerful role in determining students' futures based on whether or not they were deemed college material. Furthermore, if intelligence was unalterable, there was not much an educator could do to change the educational trajectory of students. Efficacy and accountability in schools and the teaching profession diminished.

The students who have been most harmed by the traditional system are those born into families without a college education and/or who struggle to make ends meet, children of color, children with disabilities who require accommodation and children who are new to our country or were raised in homes speaking a primary language other than English. We wrap these children together under the label "historically underserved." The students who benefited the most were middle and upper income, white, and until the last twenty years, male.

Across the country, educators and policymakers are coming to the same conclusion: the structure of the traditional system is a barrier to equity. The premise of competency education is that the culture, structure and pedagogy of the traditional education system, having been designed to sort students, must be and can be replaced with culture, structure and pedagogy that are designed to ensure every student can succeed.

Still, the question remains: How should we think about equity in a personalized, competency-based system to ensure that every student is indeed successful? This paper seeks to explore the potential pitfalls and strategies to ensure a more equitable education system. The driving questions include:

- How should equity be defined to be meaningful in a personalized, competency-based system?
- Why does the traditional education system need to change and how will competency-based systems offer more equitable learning environments?
- What principles or elements need to be in place to ensure that competency-based education fulfills its promise to offer a more equitable education system?
- 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 begins with a vision and definition of educational equity. It then explains how the traditional system was designed to promote inequitable outcomes and how competency-based education differs from the traditional system. In section III, we introduce an equity framework for personalized, competency-based education. We include a discussion of each principle, examples of policies and practices that will help to create an equitable environment and examples of red flags of shallow or weak implementation. The last section provides recommendations for future action. A glossary is provided in the appendix to clarify the terms used in the paper.

II. A Vision of Educational Equity

Our vision for educational equity is a fair and just system where every learner — students and educators alike — is thriving. In order to realize educational equity, 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 that continues to do so today. For three centuries, communities have been advocating and demanding that barriers be removed in a pursuit of more access and equitable education for all. It is time to respond to their demands.

Inequity is often referred to as a cause of the tremendous educational disparities in achievement and attainment we see today. However, some also refer to inequity as the persistent predictability of student outcomes on the basis of race, wealth and family status. Advocates have demanded and organized to remove barriers for segments of our society — by gender, by color of skin, by language and for those with a disability — in pursuit of more equal resources, access and outcomes. While allocating resources fairly and leveling the playing field to increase access remain necessary goals, these are inadequate to fully realize more equitable opportunities and outcomes for all students. For that ambitious goal — a goal we have never yet realized in our nation — we must convene around a set of strategies that focus on dramatically changing the culture of our schools and systems, the structures that are used to organize schools and learning processes, and the very types of learning experiences that students have throughout their education.

The field is full of different perspectives about equity. To engage in a discussion and eventually convene around common strategies for equity, we must start by unpacking what we mean when we say “equity” to ensure we are not talking past each other.

The National Equity Project defines educational equity as¹:

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.*

EQUITABLE EDUCATION SYSTEMS

ENSURE EQUAL OUTCOMES

Ensure equally high outcomes for all participants in our educational system; remove the predictability of success or failures that currently correlates with any social or cultural factor.

DISRUPT INSTITUTIONAL INEQUITY

Interrupt inequitable practices, examine biases, and create inclusive multicultural school environments for adults and children.

INCLUDE & PERSONALIZE

Discovering and cultivating the unique gifts, talents and interests that every human possesses.

This definition of equity is powerful because it looks beyond closing academic achievement gaps and offers a vision for a world in which all students thrive. Furthermore, achieving equity requires us to work at three levels: systemically, organizationally and individually. Collective action is needed to dismantle the institutional practices that reproduce inequity. At the school and classroom levels, practitioners focus on the demanding work of rooting out old practices and mindsets that reinforce inequitable outcomes, and introducing more effective strategies to embrace all that we know about the learning sciences and multicultural learning. Knowing that inequity begins with the beliefs of individuals, creating an equitable future requires adults to take responsibility for uncovering, unpacking and addressing the biases that we carry, consciously and unconsciously, in our hearts and minds.

Please note, referring to students' "potential" runs the risk of reinforcing a fixed mindset or notions that students have a predetermined amount of potential, some having more or less than others. Alternatively, "potential" can be understood in a more aspirational way, pushing us to look beyond what students have accomplished to date to focus instead on what more is possible. It is not for educators to determine potential, but to help students discover and reach their own.



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It is helpful to consider where we are today on the historical journey toward educational equity. Early on this journey, educators focused on creating **greater access** for students — ensuring that the doors of the schoolhouse were open to all students. But access alone proved insufficient and we realized that separate would never be equal. Thus, we shifted our focus toward **integration and equality**. In the struggle for equality, advocates fought to ensure all schools and all students had the same level of resources and the same pathways to academic and postsecondary outcomes. And yet, these goals remain unrealized today. There is still much work to be done to provide meaningful access to equal resources and pathways.

Over the past twenty years, our understanding and vision of a fair and equitable education system has evolved. We have come to recognize that equality — providing the same resources or educational experiences — is not enough. Equity requires us to recognize that students are asked to achieve similar outcomes within a broader set of social and historical contexts. Our goal has shifted beyond equality to notions of **equity and fairness that demand personalization**: that we respond to students as individuals and ensure they have what they need to succeed. Educational equity is a vision

grounded in the principle of fairness in which all students are fully supported along personal learning pathways to reach high educational expectations and develop to their fullest potential. In order for students to have a fair shot at thriving in college and career, we must recognize and shape educational strategies that take into context the economic and racial disparity that shape communities across our country.

Educational equity promises that every student will reach their potential by designing an educational system that responds to students to ensure they are building the skills they will need in their future. Realizing this promise requires us to start with the belief that the same high expectations — preparation for college, career and life — are possible for all students. From here, equitable systems actively seek to identify a student's unique set of experiences, strengths, needs, identities and passions, and use these as assets in the work of helping students to meet these expectations. Thus, educational systems need to have the capacity to meet students where they are: schools need to have flexibility in order to provide the support necessary for students to achieve success.

An equitable educational system starts with a commitment to quality and excellence, is designed to personalize learning and embeds strong equity strategies into the core of the organization. Equity reflects a commitment to ensuring that historically underserved students are successful by continually asking, "How should the system adapt and respond in order to engage and empower students to learn, progress and achieve mastery? What will it take to ensure that students who are not making adequate progress are moving forward?" Equal access and equal resources are necessary but insufficient to realize this vision for equity. Equity requires us to go further to create a more adaptive system that supports a personalized approach that meets students where they are and leverages student agency, motivation and engagement to optimize a school's pedagogical approach so that every student has a meaningful pathway to college and career readiness and beyond.

High quality, competency-based education starts with a deep commitment to equity by leadership — school boards, superintendents and principals — that all students can and should learn. Leadership drives a community conversation that ensures equity is at the forefront.

Having a common set of shared and ambitious expectations for all students is critical to equity, but it isn't enough. We posit that each student's "potential" must include the set of common expectations for students described earlier in this paper as prepared for college, career and life. However, each student's potential will be unique and goes beyond these shared expectations. Each student's potential is a reflection of their unique passions, interests, talents and experiences. Equity pushes us to move beyond simply holding different students to a shared set of expectations toward understanding that each student approaches those expectations with a different set of personal experiences, skills and identities. Our education system needs to value the many motivations that students bring to their learning, and provide multiple pathways and multiple means of demonstrating learning to ensure students have meaningful choices in creating their future. Understanding a student's individual "potential" is an important concept to unpack and a powerful starting point for discussions within each school community. Done well, these conversations drive equity by internalizing a shared understanding and commitment.

While competency-based education structures are designed in a way that facilitate equity and excellence, inequity can still seep into a system. A deep and vigilant commitment to equity is required to overcome bias and inequitable patterns. ***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?***

III. Understanding Competency-Based Education

Understanding competency-based education takes time, reflection and the willingness to challenge assumptions. Most of us grew up and were shaped by our experiences in the traditional school with its focus on schedules, ringing bells, points for good behavior and summative assessments. It's hard to imagine a different system that personalizes the educational experience to the degree that all students are fully engaged and receiving the support they need to advance. Misconceptions about competency-based education develop when only one aspect of the traditional school is challenged — such as pace or grades. In fact, competency-based education is a redesign of the culture and structure of school systems.

In this section, two different ways to explore competency-based education are offered, written for those who are new to competency-based education as well as those who are seeking to further their understanding. First, we revisit the purpose of the K-12 public education system. Second, an analysis of the traditional system is offered and then compared to competency-based education.

A. Readiness for College, Career and Life: The Purpose of K-12 Public Education Today

“Every system is perfectly designed to get the results it gets.”²

Effective system design starts with a clarity of purpose. What are the results we want to get from our system of public education? The current design of our K-12 public education system delivers the following results: after decades of policy reforms and targeted improvement strategies, the on-time graduation rate has inched up to 82%, with states ranging from 61% to 91%. Yet, inequitable outcomes remain. Alaska Natives, students with disabilities, Native American, African-American and Latino students continue to graduate at much lower rates: 55, 64, 70, 73 and 76%, respectively.³

Among those students who do graduate high school, nearly 25% of them, from all socioeconomic groups, require remedial courses in college, costing them and their families \$1.5 billion a year.⁴ Graduates who enter the world of work directly after high school fare no better, with 62% of employers by one account indicating that “high schools aren’t doing enough to prepare their graduates to meet the expectations of the workplace.”⁵ Students are not fully prepared for civic engagement to ensure a functioning democracy (only 30% of today’s young people believe it is “essential” to live in a country that is governed democratically.)⁶ These results are evidence that students are not getting what they need from the public education system. The implications of this ripple through their lives, families, communities and our economy. In the next section of this paper, we will explore why the traditional system is designed to produce these results. First, let’s consider what results we want instead.

So, what is the purpose of public education today and what are the results we want it to deliver? The purpose of public education has evolved significantly since the first public school, Boston Latin School, was established in the 17th century to educate white males in, among other things, “religion, Latin and classical literature.” Today, states and districts define the purpose of education in a variety of different ways.⁷ Increasingly that purpose is stated as “college and career readiness,” or a variation thereof. But what does it really mean to be college and career ready? Although the terminology and details may vary, almost all states and districts continue to use a combination of time-based academic credits, state graduation exams and state accountability exams to measure learning. For the majority of states, these elements prioritize content knowledge rather than skills, with a focus upon a narrow set of areas — math and English language arts.

High-quality systems of competency-based education start with a community’s aspirations for students. These systems begin with the recognition that merely completing twelve years of school is an insufficient outcome for students. Though each is different, high-quality competency-based education systems consistently aspire that students will be able to articulate a vision for their futures, exercise agency in pursuing that vision and effectively navigate their own paths.⁸ This vision is available to all students, not simply those on a particular path or from a limited set of backgrounds. Competency-based culture, structures and pedagogical strategies are designed to ensure that all students will attain these outcomes. While college and career readiness are absolutely central to any educational system, the definition used in most states today is more limited than the vision of educational equity that competency-based education makes possible. For this reason, it is important that this paper begin with a statement of the intended purpose for competency-based education.

Unlike traditional systems of K-12 education, competency-based structures place an equal emphasis upon academic knowledge, the skills to transfer and apply that knowledge (higher order skills), and a set of lifelong learning skills that enable students to be independent learners. Lifelong learning skills that empower students include growth mindset, metacognition, self-regulation, social & emotional skills, advocacy and the habits of success. Districts that are pursuing competency-based systems share a belief that the current purpose of K-12 education is to facilitate a process through which all students graduate high school with the academic and lifelong learning skills to be leaders in their communities, visionaries and agents of their own success — whether in college, career or navigating the opportunities and challenges they will encounter in their lives. While each community expresses its own values and goals in the choices it makes around curriculum, pedagogy and school rituals, this core purpose is shared by districts leading the way in competency-based education.

Reflection Question

What are the outcomes or graduate profile that drives your district or school? In what way are the school design, learning environments and instruction aligned with those outcomes? In what way are they misaligned?

As discussed in more detail below, we believe competency-based education offers the most effective structure for achieving this educational purpose. This clear articulation and understanding of purpose sets us up now to turn to why the traditional system is unable to fulfill this purpose and how competency-based education is designed to best achieve it.

B. Understanding the Traditional System of Education

Before exploring key issues in a competency-based system, it is valuable to unpack why the traditional system is an obstacle to creating high-achieving schools and equitable outcomes. The strategies used by districts in response to state accountability exams under No Child Left Behind (NCLB), including one-size-fits all instructional strategies and delivering grade level curriculum regardless of what students know, exposed the limitations of the traditional system for what it is and how it reinforces inequitable achievement. At the time the accountability policies made sense in efforts to create transparency and expose inequitable outcomes, but they do not help to serve students equitably, nor do they promote effective learning and teaching according to all we know about learning sciences. Further, they reveal the fact that the purpose of the traditional system has not changed in practice since the purpose it held centuries ago: to rank and sort students. 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. The traditional system passes students on whether or not they have mastered each stage of learning. Those who have mastered the skills continue on a path toward graduation and college. For those who have not, little is offered to help them learn what was expected. As a result, students advance to higher levels of learning without the prerequisite skills and knowledge to succeed. This sorting function of traditional education is exacerbated by unequal and inequitable school resources that continue to haunt the education system.

Ten Flaws in the Traditional System

The traditional system is not designed to produce the goals we have set for it, or that our children, communities and nation need and deserve. We identify ten primary flaws in the traditional system that perpetuate inequity and low achievement.

PURPOSE AND CULTURE



The traditional system is focused on a narrow set of academic outcomes emphasizing academic skills, memorization and comprehension of content. It fails to recognize that student success is dependent on more than academic knowledge. Success requires a full range of foundational skill including social-emotional skills and the ability to transfer knowledge and skills to new contexts. Competency education is designed to help students learn academic knowledge, the skills to apply it and lifelong learning skills that are needed to be fully prepared for college, career and life.



The traditional system is built on a fixed mindset - the notion that people's "abilities are carved in stone." Purpose includes ranking and sorting students creating "winners" and "losers" and perpetuating patterns of inequality in society. In contrast, a competency-based education system is built upon a growth mindset with a belief that all children can learn with the right mix of challenges and supports.⁹ Competency-based education meets students where they are to ensure that each one can be successful to the same high college- and career-ready standards.



The traditional system relies upon a bureaucratic, hierarchical system that perpetuates traditional roles, cultural norms and power dynamics that values compliance and doesn't support inclusivity and cultural responsiveness. Competency education seeks to create an empowering, responsive system that is designed to build trust and challenge inequity.

STRUCTURE



The traditional system allows high variability in how educators determine proficiency in traditional settings. Competency-based systems ensure consistency in expectations of what it means to master knowledge and skills. Districts build educator capacity to make judgments of student mastery to the same high standards.



The traditional system articulates opaque learning objectives and performance expectations with limited information for students about the learning cycle. Students receive grades with little guidance on what is needed to do better or opportunities for revision. Competency-based education values transparency with clear and explicit expectations of the learning cycle and architecture including what is to be learned, the level of performance for mastery and how students are progressing.



The traditional system uses academic grading practices that can often send mixed messages and misleading signals about what students know by reflecting a mix of factors, including behavior, assignment completion and getting a passing grade on tests, not student learning. Grading in competency education is designed to communicate student progress in learning academic skills and content as well as the skills they need to be lifelong learners.



The traditional system is time-based. Schools batch students by age and move them through the same content and courses at the same pace. Students advance to the next grade level after a year of schooling regardless of what they actually learned. Competency-based education is based on learning: students must demonstrate mastery of learning, with schools monitoring pace and offering additional supports to meet time-bound targets.

PEDAGOGY



The traditional system is organized to efficiently cover the curriculum based on age and depends on extrinsic motivation. The traditional system was developed before the emerging research about what we now know about how children learn. In competency-based education, everything should be rooted in what we know is best for students in terms of engagement, motivation and learning. Competency education fosters intrinsic motivation by activating student agency and providing multiple pathways for learning to the same high standards.



The traditional system targets supports to students when their academic or behavioral needs are identified as significantly above or below the norm (i.e. special education, gifted). Competency-based education provides timely and differentiated instruction and support. Schools offer daily flex time and time for students to receive additional support before and after the semester.



The traditional system emphasizes assessment for summative purposes to verify what students know. One size fits all assessments are conducted at predetermined points of time or at end of unit and are administered to all students at the same time and in the same format on the same content. In competency-based schools, assessment for learning with robust formative assessment contributes to student growth. A balanced system of assessment aligns with high expectations that students learn how to transfer knowledge and skills through performance-based assessments. When possible, assessment is embedded in the personalized learning cycle.

The result of the traditional system is educational inequity. There are many ways to measure educational outcomes. Rates of college and career readiness is one data point that, even if limited, helps us understand how we are doing at ensuring historically underserved students receive an education that prepares them for success. In New York, for example, 76.3% of New York students from the class of 2014 took the SAT. Of these SAT test-takers, 39.2% (60,611 students) met the SAT College and Career Readiness Benchmark.¹⁰ The number of students not meeting this one benchmark is especially acute among underrepresented minority students:

- 14.1% of New York's African American SAT takers met the benchmark.
- 19.3% of New York's Hispanic SAT takers met the benchmark.
- 24.5% of New York's Native American SAT takers met the benchmark.
- These troubling inequities are similar to those in other districts and states across the nation.

Reflection Question

In what way does your district or school demonstrate these features? Select one of the flaws of the traditional system and consider: What are the policies and practices that create and reinforce this feature? What is the impact on students and educators?

Traditional systems determine their work “complete” when students meet the number of credits required for high school graduation despite the persistent inability to adequately prepare so many students for success in college, career and life. Time-based credits have allowed districts to graduate students from high school with only middle school skills or worse. Transcripts listing courses say little about academic skills, and students bear the cost — 68% of those starting at public 2-year institutions and 40% of those starting at public 4-year institutions took at least one remedial course.¹¹

Another way to think about the equity of the education system is to consider opportunity gaps. Research at Stanford University looked at academic achievement and found that:¹²

- 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 achievement and identify inequity that is 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% of black students are proficient or above in eighth grade math and 16% in eighth grade reading.¹³ Or is it really so shocking? If the traditional education system is designed to sort students rather than help all students learn, why would we expect results different than these? And the more important question: how can we design something different?

C. Comparing Competency-Based Education with the Traditional Education System

In a proficiency system, failure or poor performance may be part of the student's learning curve, but it is not an outcome.

– Proficiency-Based Instruction and Assessment, Oregon Education Roundtable

Across the country, schools, districts and states are replacing the traditional, time-based structure with one that is designed to help each student reach proficiency. Educators organize learning in a variety of ways that respond to students and are designed to motivate and engage students in mastery of their own learning. Competency-based structures are also designed to ensure students reach proficiency so that students and parents are confident that their students are learning what they need to as they advance toward graduation.

Working Definition of Competency-Based Education (2011)



Students advance upon demonstrated mastery — By advancing upon demonstrated mastery rather than on seat time, students are more engaged and motivated, and educators can direct their efforts to where students need the most help.



Students receive timely, differentiated support based on their individual learning needs — Students receive the supports and flexibility they need, when they need them, to learn, thrive and master the competencies they will need to succeed.



Competencies include explicit, measurable, transferable learning objectives that empower students — With clear, transparent learning objectives, students have greater ownership over their education.



Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions — Personalized, competency-based learning models meet each student where they are to build the knowledge, skills and abilities they will need to succeed in postsecondary education, in an ever-changing workplace and in civic life.



Assessment is meaningful and a positive learning experience for students — New systems of assessments give students real-time information on their progress and provide the opportunity to show evidence of higher order skills, whenever they are ready, rather than at set points in time during the school year.

The section below illustrates key differences between competency-based education as compared to traditional education systems, and offers examples of how competency-based systems can embed an intentional focus upon equity.

Comparison Of The Traditional Education System With Competency-Based Education (CBE)			
	Ten Flaws of the Traditional System	Distinguishing Features of CBE	CBE with Equity at the Center
OUTCOMES	Focuses on a narrow set of academic outcomes emphasizing academic skills, memorization and comprehension of content. Fails to recognize that student success is dependent on a full range of foundational skills, including social-emotional skills, and the application of skills.	Focuses on a broad and holistic set of student success outcomes that include deep understanding of content knowledge and skill demonstrated through application. Includes competencies that prepare students for college, career and lifelong learning.	Recognizes students for the assets they already possess and encourages them to develop their interests and talents, while building academic knowledge, skills and competencies.
MINDSET	Based on a fixed mindset: that people's abilities are innate and immutable. Ranks and sorts students creating "winners" and "losers," perpetuating patterns of inequality in society.	Builds upon a growth mindset: that learning and performance can improve with effort. Demonstrates belief that all children can learn with the right mix of challenges and supports. Takes responsibility for all students mastering learning expectations. Requires shared vision, collaborative approach, flexibility to be more responsive and commitment to continuous improvement.	Ensures gaps in knowledge and skills are addressed so students are fully prepared for more advanced studies. Seeks out and disrupts inequitable practices and bias.
CULTURE	Emphasizes compliance and order in school culture. Relies upon a bureaucratic, hierarchical system that perpetuates traditional roles, cultural norms and power dynamics.	Nurtures empowering, inclusive cultures of learning. Values agency for students and adults with distributed leadership. Recognizes safety and belonging is important to learning.	Embraces cultural responsiveness at all levels of the district. Involves students in school governance.
RELIABILITY	Permits high degrees of variability in how educators, schools and districts determine proficiency. Students are held to different standards within courses, schools and districts.	Ensures consistent expectations and definitions of what it means to master knowledge and skills. Builds educator capacity for judging student mastery and holding all students to the same high standards.	Establishes moderation and calibration processes across schools and across districts to reduce variability and different levels of standards for different students and communities.
LEARNING INFRASTRUCTURE	Offers opaque learning objectives and performance expectations with limited information for students about the learning cycle. Students receive grades with little guidance on what is needed to do to better opportunities for revision. Varies in teacher expectations of what high achievement means.	Values transparency with clear and explicit expectations of what is to be learned, the level of performance for mastery, and how students are progressing. Provides measurable learning targets and proficiency is transparent to students.	Empowers and motivates students by creating opportunities for more voice in how they learn and demonstrate learning.

Comparison Of The Traditional Education System With Competency-Based Education (CBE)

	Ten Flaws of the Traditional System	Distinguishing Features of CBE	CBE with Equity at the Center
GRADING	Uses academic grading practices that can often send mixed messages and misleading signals about what students know by reflecting a mix of factors, including behavior, assignment completion and getting a passing grade on tests, not student learning.	Communicates progress in ways that support the learning process and student success. Closely monitors growth and progress of students based on their learning pathway, not just grade level. Designs grading and scoring to communicate with students about their progress in learning academics, transferable skills and building blocks of learning.	Monitors how students progress to ensure all students meet high levels of rigor. Produces data on student progress that informs professional learning of teachers, collaboration and inquiry-research to build capacity of school.
ADVANCEMENT	Is time-based. Batches students by age and moves them through the same content and courses at the same pace. Advances students to the next grade level after a year of schooling regardless of what they actually learned.	Advances students based on attainment of learning expectations (mastery) through personalized learning pathways. Provides instruction until students fully learn the concepts and skills and then advance after demonstrating mastery. This requires additional support, not retention.	Designs students' learning pathways around individual student progress and needs and may not follow linear process. Provides instructional support that reflects a pace and rate of progress designed to result in students achieving mastery of college and career readiness by graduation.
SUPPORTS	Targets supports to students when their academic or behavioral needs are identified as significantly above or below the norm (i.e. SPeD, gifted and talented).	Designs to provide timely and differentiated instruction and support. Provides daily flex time and time for students to receive additional support before and after semesters.	Embeds culturally responsive support and instruction. Provides academic pathways for students who are off-track to graduation by 18 to complete their secondary education.
PEDAGOGY	Delivers a single curriculum to all students based on age. Emphasizes covering the curriculum each year. Fails to ground learning and teaching in the learning sciences - what we know about how children learn.	Draws upon learning sciences to inform pedagogical principles for students and adults. Takes into consideration student pathway in designing instruction. Increases motivation, engagement and effort through research-based strategies.	Grounds instruction in personal relationships and curriculum is intentionally examined to address bias and create a culture of inclusivity. Incorporates Universal Design for Learning strategies.
ASSESSMENT	Emphasizes assessment for summative purposes to verify what students know. Conducts one-size-fits-all assessments at predetermined points of time or at the end of the unit and are administered to all students at the same time and in the same format on the same content.	Embeds assessment in a personalized learning cycle and aligns to outcomes. Aligns assessment with the expectation that students will be able to transfer knowledge and skills to challenging new contexts. Clarifies students' next steps for individual learning pathways. Informs educator professional learning.	Maintains rigor and high expectations for all students. Supplies on-going opportunity to apply or transfer a learning target in novel contexts and provide evidence. Includes coaching students on increasing lifelong learning skills and agency.

Educators turn to competency-based education when they come to the realization that no matter what curriculum, program or instructional strategy they use, the traditional system was never designed to have all students succeed. As districts and schools begin the redesign toward a personalized, competency-based system they often begin with study, reflection and dialogue about what communities and parents want for their students upon graduation from high school, what a system looks like that will reliably produce those outcomes for all students and what practices of the traditional system need to change. They embrace a shared responsibility to do what is best for students to help them successfully learn academic knowledge, the skills to apply it and the lifelong learning skills needed to be successful in college, career and life.

D. Competency-Based Education and Personalized Learning Go Hand in Hand

Competency-based structures focus upon **each student's** unique K-12 educational journey while ensuring that **all students** emerge from their K-12 experience ready to pursue and succeed in the postsecondary pathway of their choice. In this way, they are designed for equity with a focus upon responsiveness, consistency, transparency, fairness and continuous improvement. As the learning sciences tell us,¹⁴ it is important to personalize learning rather than depend on the one-size-fits-all instruction and curriculum of the traditional system. In fact it would be nearly impossible to have all students reach college and career readiness without doing so.

Competency-based education assumes that schools will meet students where they are; personalized learning is an approach to optimizing a school's pedagogical strategy to effectively support each student, drawing on research about learning, motivation and engagement.¹⁵ 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.

In order to become active learners who have a sense of ownership of their education, students need specific mindsets and skills. Schools invest in helping students build the growth mindset and positive academic identity as well as the habits of success and social-emotional skills they need to be self-directed learners and to persist through in productive struggle. Schools play a critical role in creating the learning opportunities and coaching that students need to successfully learn how to learn. Instruction is designed to meet students where they are, taking into account their prerequisite skills, mindsets, interests and social-emotional skills.

Personalized learning is optimized by competency-based structures that ensure consistent validation of proficiency based on student work, and careful monitoring of pace and progress. This consistency and monitoring is important for districts and schools becoming accountable for student success. Without a competency-based system that has an intentional focus on equity, personalization has the potential to perpetuate and in some instances even exacerbate inequity. Without personalization, competency-based education cannot guarantee that students will receive the instruction and support they need to learn. While the design of competency-based structures and personalized learning practices naturally support equitable education, realizing this goal requires intentionality.

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

IV. Introducing an Equity Framework for Competency-Based Education

The following offers a framework for how states, districts and schools can develop an equity agenda within their competency-based systems. Within nine domains, a **short description** and **key characteristics** provide an overview of the principle, a **rationale** explains the importance to equity, suggested **policies and practices** guide further exploration, **look-fors** and **red flags** provide examples of effective or problematic practice to trigger capacity building and **reflection questions** serve to launch discussion. How districts and schools intentionally design for equity is based on the local context including the community, the previous strategies put into place, and the level of trust and readiness of the staff to courageously confront bias and institutional practices. States, districts and schools that seek to proactively dismantle inequity understand that different strategies are needed to address the nature of inequitable practices at the different levels of the education system: individual beliefs and bias, instruction and assessment, school design and culture, and systemic policies and resource allocation. The framework offers a launching point for states, districts and schools to create and embed equity strategies that reflect their local context within personalized, competency-based systems.

It is important to understand that the principles that guide creating an equitable system that effectively serves all students in competency education, are much the same as those principles that drive quality. See *Quality Principles for Competency-Based Education* for more information about developing high-quality competency-based systems.

EQUITY PRINCIPLES: In order to seek educational equity, districts and schools will...



Nurture Strong Culture of Learning and Inclusivity



Engage the Community in Shaping New Definitions of Success and Graduation Outcomes



Invest in Adult Mindsets, Knowledge and Skills



Establish Transparency About Learning, Progress and Pace



Monitor and Respond to Student Progress, Proficiency and Pace



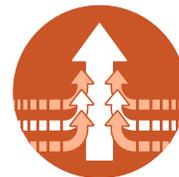
Respond and Adapt to Students Using Continuous Improvement Processes



Develop Shared Pedagogical Philosophy Based on Learning Sciences



Support Students in Building Skills for Agency



Ensure Consistency of Expectations and Understanding of Proficiency

A. PURPOSE AND CULTURE



Nurture a Strong Culture of Learning, Inclusivity and Empowerment

DESCRIPTION

District and school culture ensure all students and adults, especially the most marginalized, feel safe and respected. They are intentionally designed to build trusting relationships that promote positive identity and enable direct and productive feedback. Adults regularly share their own learning and model a growth mindset for students. Students unfamiliar with a school's dominant culture may lack fluency in the social cues and language that educators use to interpret students' readiness for learning. Acknowledging the existence of a dominant culture is important in order to open dialogue regarding student communication and engagement. Students are supported in becoming independent learners, educators have the autonomy to be responsive to students as they progress and distributed leadership strategies empower staff to make decisions based on what is best for students.

KEY CHARACTERISTICS

- **Learning** - Culture fosters collective responsibility for ensuring students succeed. Schools draw on learning sciences and practice continuous improvement to help students and adults learn and grow.
- **Relational belonging and inclusion** - Culture fosters authentic relationships between the community and students. Inclusion and relational belonging supports student learning. Culture actively promotes trust, empathy, collaboration and social learning across all elements of diversity.
- **Cultural responsiveness** - Relationships, learning environments and learning experiences respect each student's personal and cultural identities. Culture actively supports all stakeholders, especially adults, to identify, investigate and address unconscious bias and stereotypes.
- **Growth mindset** - Culture actively establishes room to fail as a part of learning and improvement. Motivational strategies, relational trust, feedback processes, systems of support and accountability seek to optimize student effort and learning.
- **Empowerment** - Students and educators are able to make decisions that support their personal learning paths and progress. Empowerment begins with building the metacognition and social and emotional skills that are the foundation of student agency. Empowerment is reflected in management and operational structures.

WHY IS A CULTURE OF LEARNING, INCLUSIVITY AND EMPOWERMENT IMPORTANT FOR EQUITY?

The culture of the district and school shapes how practices and policies are implemented and perceived. Without a strong culture of learning, inclusivity and empowerment, dynamics of institutional inequities that have been built into education systems are likely to persist, impeding the technical structures of a competency-based system and perpetuating inequitable outcomes.

Based on research in the learning sciences, students need physical and emotional safety to learn. It is very difficult to learn if one doesn't feel safe and respected, have trust that educators fully believe in them, or feel that the system is stacked against them. This is particularly true for students coping with personal or environmental trauma; for these students,

relational support and trust are imperative to counteracting the emotional and neurological effects of trauma and to creating conditions in which learning is possible. The culture of the school must be designed to help students feel safe and respected and that they truly belong. Teachers also need safety and a sense of belonging to take risks as well. Building a culture that supports high level of trust among adults is important in motivating educators to pursue professional learning, develop new practices and address their gaps in knowledge.

The learning sciences also emphasize that learning is a social process rooted in interactions with people and environments. To facilitate social learning, it is imperative that schools cultivate supportive and consistent relationships between educators and students, and among students as peers. Relationships need to be based on respect and an attempt to understand different perspectives. Because implicit biases and stereotypes can impact the process of forming relationships, school culture must value cultural responsiveness and create learning conditions in which biases can be identified, discussed and used as opportunities for growth, rather than shaming.

A culture of equity is also one that values the distribution of power and authority to students and educators. When students advocate for what they need in the process of becoming independent learners, power dynamics will shift: students will demonstrate ownership and authority in their own learning and share power with educators, and educators will demonstrate greater ownership over instructional decision-making to ensure they can meet all students' needs. To this end, schools must create conditions that empower and facilitate self-direction, empowerment and ample flexibility at all levels. Management strategies must distribute decision-making so that educators and students have the flexibility to pursue personalized pathways of learning.

POLICIES AND PRACTICES MAY INCLUDE:

- All policies and procedures nurture cultures of learning in which students feel safe and respected.
- Students and educators have opportunities for choice, voice and leadership within the school and school governance.
- Students and educators 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 as assets to a student's learning.
- Educator and administrator workforce actively works toward attaining cultural competency.
- Shared criteria is developed to support decision-making.

Reflection Questions

In what way does your district or school promote a growth mindset? Do policies and practices help students and educators strengthen their growth mindset? Are students and educators encouraged to see failure as opportunity for learning?

What is the level of trust in your district or school? What strategies are used to build trust? What strategies may contribute to mistrust?

What strategies are in place to ensure that students and adults feel safe, respected and that they belong to the school community? What practices may contribute to mistrust?

What strategies are in place to support students building the capacities that enable agency and empowerment such as social and emotional skills?

To what degree do educators have autonomy to make decisions regarding students education?

Examples of Look-Fors

- Students and educators can tell you about a time when they failed or made a mistake and what they learned from it.
- Intentional efforts to identify practice within professional learning communities and through management reports looking for patterns of inequity.
- Restorative justice practices.
- A set of criteria that guides decision-making on the wall in the conference room.

Examples of Red Flags

- Posters about the growth mindset on the walls, but traditional grading practices that do not allow for revision in pursuit of mastering the learning targets.
 - Espoused value of learning but disciplinary policies that disproportionately exclude students of color.
-



Engage the Community in Shaping New Definitions of Success and Graduation Outcomes

DESCRIPTION

Districts and schools engage their community in creating a shared vision of what students need to know and be able to do for future success. They take proactive steps to be sure that all voices — particularly those that have been historically marginalized — are included and elevated. Through these dialogues and leveraging research about the learning sciences, districts and schools define well-rounded competencies that all students will master upon graduation. Their definition of student success includes but is not limited to what it means to be college and career ready: they integrate academic knowledge, the skills to transfer and apply that knowledge, and a set of lifelong learning skills that enable students to be independent learners. Because students have different strengths, interests and aspirations, districts and schools may allow for multiple pathways to success and multiple methods of demonstrating success. However, they balance this flexibility with rigorous commitment to ensuring all pathways and all demonstrations are equally reflective of the competencies that define success. And, beyond simply defining success, districts and schools create a culture of learning in which all stakeholders internalize and value their shared vision of success and commit to shared accountability for ensuring that all students achieve it.

KEY CHARACTERISTICS

- **Community-driven** - Definitions of success elevate community voice, especially those voices that have been historically marginalized.
- **Knowledge, skill and lifelong learning** - Definitions of success include academic knowledge, the expertise to apply it and skills associated with lifelong learning.
- **Flexibility with equal rigor** - Definitions of success accommodate multiple pathways to certification and multiple types of demonstration, but ensure that all are equally rigorous and are accurately reflective of success competencies.
- **Alignment** - Definitions of success inform the design of culture, education structures, pedagogy and learning experiences.

WHY DO THE DEFINITIONS OF SUCCESS MAKE A DIFFERENCE FOR EQUITY?

As states and districts reflect more deeply on what it means to prepare students for college and career, graduation expectations are beginning to expand beyond academic skills and knowledge to include higher order skills (those that are 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. Graduation expectations may also include [global competencies](#),¹⁶ which offers an opportunity for educators to integrate culturally responsive practices into their instruction and value students' life experiences as assets that enrich the classroom. Expanded definitions of success are particularly important for students who have been historically marginalized and who are likely to encounter discriminatory barriers and other challenges in their lives because of their race, ethnicity, disability or where they were born. Lifelong learning skills and positive cultural identity empower these students to navigate through and around barriers, self-advocate, and affect positive change in their lives and communities.

Expanded definitions of student success promote equity by making sure students have meaningful options about their future pathways beyond graduation. As self-directed individuals, students will choose to pursue different paths to graduation (different learning pathways) and different paths beyond graduation (different life choices). In competency-based systems, definitions of success represent the knowledge, skills and dispositions needed for success across any post-graduation pathway. They ensure students can pursue personalized paths in their educational experience without limiting their options beyond graduation. It is this practice — designing personal pathways that all lead to competencies which afford students real choices after graduation - that ensures students can experience learning, which respects who they are as individuals and have equal opportunity regardless.

Once districts and schools commit to visions of success that integrate academic knowledge — the skills to apply that knowledge in meaningful ways and the skills associated with lifelong learning - they must then move to align their culture, structure and pedagogy with these expanded definitions of success. The types of learning experiences and instructional strategies that result from this alignment deepen student learning throughout their educational experience and help educators better prepare students to navigate new environments, engage in problem-solving and advocate for themselves.

Reflection Questions

What strategies have been effective for engaging the most marginalized parts of the community in developing a shared definition of student success?

What are the expectations for the skills, knowledge and traits that students will need for lifelong learning and preparation for college and career? How are these reflected in graduation competencies and other certifications of learning?

What structures and systems of accountability are in place to ensure that all pathways to graduation are equally rigorous, and that students from historically marginalized communities have the resources they need to attain graduation outcomes at the same rate as their white and middle class peers?

In what ways do district and school culture, structures and pedagogies align to ensure that students build the necessary knowledge, skills and habits? In what ways isn't it aligned?

POLICIES AND PRACTICES MAY INCLUDE:

- Student success is broadly defined to include academic knowledge, the skills to transfer and apply that knowledge, and a set of lifelong learning skills that enable students to be independent learners.
- Districts and schools provide options for demonstration of learning and multiple pathways toward graduation, along with other forms of certification of learning. They ensure that all pathways and all demonstrations reflect graduation competencies with equal rigor.
- Multiple meaningful measures of student success are used to provide feedback on school performance.
- Social and emotional skills, habits of success and other 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.

Examples of Look-Fors

- Community engagement is ongoing with strategies to reach the most underserved or marginalized communities.
- Global or cultural competence is included as an outcome with culturally responsive instruction strategies.
- School schedules are designed to provide opportunities for project-based learning, extended learning in the community and other opportunities for deeper learning.

Examples of Red Flags

- A superintendent or school board created graduation outcomes and did not engage the community, educators or students.
- Graduation outcomes are taken seriously in creating multiple pathways. However, students are being directed into pathways based on their previous educational experience, family income or stereotypes.



Invest in Adult Mindsets, Knowledge and Skills

DESCRIPTION

Leadership values and supports the ongoing growth of adults. Trust is actively nurtured. Structures provide ongoing opportunities for nurturing growth mindset and self-reflection. Adults deepen awareness of their own cultural identities, seek to understand their students', and proactively address bias. Teachers are supported in building their professional skills in the learning sciences, instructional strategies, knowledge of the domains, learning progressions and equity strategies including cultural responsiveness and Universal Design for Learning.

KEY CHARACTERISTICS

- **Shared definition of professional competency** - Districts and schools articulate shared definitions of professional competence: the knowledge, skills and mindsets that educators need in order to promote educational equity and support student success in a competency-based system.
- **Teaching as learning** - Educators model growth mindset and continuous improvement in their practice. They take risks, learn through failure and reflect with their students.

- **Personalized development** - Educators have access to opportunities for growth and learning that meet their individual needs and help them achieve personal goals.
- **Collaborative practice** - Educators have opportunities to work together: they collaborate around instructional design, continuous improvement practice and teaching. Educators share responsibility for student success and for one another's development.
- **Cultural proficiency** - Districts and schools support educators through the processes of investigating their own racial and cultural identities, identifying and addressing bias and developing skill sets for culturally proficient relationship development and instruction.
- **Aligned evaluation** - Educator evaluation supports and incentivizes the types of practice that are expected of them in competency-based, equity-focused systems.

WHY IS INVESTING IN ADULT MINDSETS, KNOWLEDGE AND SKILLS IMPORTANT FOR EQUITY?

Competency-based, equity-focused systems may demand new things of educators: new knowledge, new skills and new ways of thinking. It is imperative that these systems define what it is that they expect of educators and actively develop educators to achieve new expectations. Further, it is critical that systems do so in a way that honors and reflects the same beliefs about learning which are held for students: that culture is growth-oriented and inclusive, that targets and progress are transparent, that supports are personalized and that outcomes include knowledge, skill and mindsets.

Districts and schools must define new definitions of professional practice. While these will look very different in different contexts, they must be explicit about what educators must know, what they must be able to do and what they must believe. All of these domains — knowledge, skill and mindset — must be viewed developmentally. This may be especially challenging in the domains of belief, where we tend to assume that people are fixed. Competency-based systems view belief systems as malleable. While they set limits and expectations that ensure adults do not harm students by holding harmful beliefs, these systems also allow time and space for educators to identify, interrogate and address orientations including implicit bias, racial self awareness and cultural competency. For this to work, educators must hold a growth mindset that allows them to remain open to learning and believe in their own malleability.

In a competency-based system, educators become expert learners who model the process of learning for students and engage in their own learning in response to the needs of their students. This will entail developing new knowledge and skills, including personalized learning classroom management practices, coaching in the lifelong learning skills and more expansive pedagogical knowledge. Unlike in traditional systems, which tend to take a punitive view of educator quality and improvement, educators in competency-based systems will find themselves on learning trajectories during the transition to competency-based education. To model learning for their students, they will be explicit about their growth targets and process and they will model learning through failure. While they will set personalized goals and pathways, they will not see teaching or improvement as isolated entities; they will model collective responsibility for student learning and peer educator development, and they will treat professional growth like a process of social, collaborative learning.

Reflection Questions

In what ways are educators supported in their professional learning that is linked to student growth?

How are adult beliefs and actions examined in an ongoing way that identifies bias and supports empathy, self-awareness and inclusivity?

Do adults have opportunities to develop the mindsets needed to promote equity?

Do educators have the time and space to make teaching and improvement collaborative practices?

POLICIES AND PRACTICES MAY INCLUDE:

- There are frequent opportunities for educators to meet, plan and learn together.
- Professional development has been personalized so that educators are accessing coaching and training based on their prior knowledge and goals for improving instructional skills.

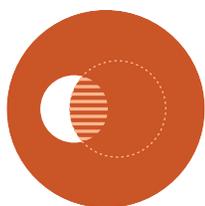
Examples of Look-Fors

- Teachers are able to explain what they are learning and what it took for them to learn new knowledge, skills and practices.
- Educators collaboratively deciding to test out a new approach to better reach students at different levels of learning.
- Teachers refer to “our students” rather than “my students.”

Examples of Red Flags

- Trying to introduce growth mindset without time for educators to meet, learn or plan together.
- District or school leadership explain that they are moving to competency education to be in compliance with state policy without engaging educators in the decision or planning.

B. STRUCTURE



Establish Transparency About Learning, Progress and Pace

DESCRIPTION

Learning cycles are explicit and transparent so that students, families and other key stakeholders know what students need to learn, what proficiency looks like, how they will be assessed, and how they are progressing. Teachers work together to use data on student progress to respond to students and to inform their professional learning.

KEY CHARACTERISTICS

- **Transparency** - Information about student learning is available and accessible to students, educators and families.
- **Accuracy** - Information is reliable and valid.
- **Timeliness** - Information is available on a timeline that supports instructional decision making.
- **Integrative** - Students and educators can monitor learning across a variety of learning pathways and across formal, informal and extended learning experiences.
- **Mastery-based progression** - Information supports educators to advance students upon demonstration of real mastery, rather than completion or seat time.
- **Responsive supports** - Information supports educators to provide students with targeted supports to help them advance.

WHY IS ESTABLISHING TRANSPARENCY ABOUT LEARNING, PACE AND PROGRESS IMPORTANT FOR EQUITY?

The traditional education system is highly opaque and demonstrates significant variability in defining what it means to be proficient. Traditional mechanisms like grades and transcripts do not accurately reflect how well a student actually knows content or demonstrates skills. This inaccuracy impairs students by making it harder to drive their own learning and impairs educators by making it harder to meet students where they are. Competency-based districts and schools ensure that goals, learning targets, exemplars of proficiency and student progress are fully transparent and available to students and educators on a timely basis. They build capacity for comparability, validity and reliability in assessments and grading practices to ensure that data is meaningful, and that students are truly mastering content and skills.

Transparency is particularly essential in competency-based systems that include personalized pathways. Transparency ensures educators can monitor whether students on different pathways are progressing toward common rigorous outcomes. And, transparency helps students and educators integrate learning that occurs across a variety of locations: in the classroom, in the community and online. This can be an important part of helping students to make connections and co-design learning experiences that are relevant to their lives.

Transparency plays multiple roles in creating more equitable systems. First and foremost, it eliminates the practice of signalling that a student is doing fine with an A, B or C grade even though they may be performing at two, three or more years below grade level. When students are allowed to progress without mastering content and skill, they move forward with holes in their learning that limit and impair future learning. These gaps compound over time, becoming harder and harder to mitigate as students advance, and making it increasingly challenging for students to progress toward college and career readiness. When learning is transparent, however, educators and students know where gaps are, address them proactively with timely and personalized supports, advance students when they have demonstrated mastery and prevent students from developing compounding learning gaps. Further, transparency enables students to understand expectations and extend trust to educators and systems; awareness and trust support help students demonstrate effort and persistence in spite of challenges. Awareness, trust, effort and persistence are catalytic: they empower students to take ownership and continually move toward mastery.

POLICIES AND PRACTICES MAY INCLUDE:

- 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.
- There is a shared vision and clear decision-making criteria.
- Grading practices and policies are clear, fair and communicate student progress in their learning.

Reflection Questions

What systems, practices and routines are in place so that students understand their own learning path and how to advance?

What key areas and processes are transparent to each set of stakeholders (students, parents, communities and educators)? What is the rationale and benefits of creating transparency? What areas and processes are not transparent and why not?

How do schools know and ensure all students are growing at a meaningful pace that guarantees they graduate prepared for college, career and life?

Examples of Look-Fors

- Examples of student work at proficient performance levels are on the walls.
- When asked students can tell you what they are working on, how it relates to competencies they will need in their future, and how they are going to demonstrate their learning.
- Students are using the learning targets to co-design projects with community partners where they will be able to apply their knowledge and skills.

Examples of Red Flags

- Standards-based grades are turned into a GPA using an algorithm that is not explicit or easily understandable.
 - Students have access to learning targets but not examples of what the expected performance level is through examples of student work.
 - Learning targets and rubrics use language that is not accessible to students and there is no effort to unpack them.
-



Monitor and Respond to Student Progress, Proficiency and Pace

DESCRIPTION

Individual student pace and progress are closely monitored, as are trends over time by individuals and cohorts. Student progress is measured by growth along a learning continuum. Strategies are personalized to ensure each student sets and sustains a pace of learning that leads them toward graduation, with supports in place that ensure all students reach proficiency.

KEY CHARACTERISTICS

- **Balanced definitions of progress** - Districts and schools find balance between pursuing grade level proficiency and progressing students along a personalized continuum of learning that reflects individual growth and progress.
- **Building foundational skills** - Districts and schools seek to meet students where they are, addressing key learning gaps, while still moving students forward.
- **Balance of breadth and depth** - Districts and schools seek to balance providing students opportunities to develop deep, enduring and transferable knowledge with helping students to build proficiency in the standards upon which they rest.
- **Timely, differentiated supports** - Districts and schools ensure students have access to the supports they need to keep pace toward graduation.
- **Data-driven practice** - Districts and schools have access to data to diagnose and address learning gaps.

WHY IS MONITORING AND RESPONDING TO STUDENT PROGRESS, PROFICIENCY AND PACE IMPORTANT TO EQUITY?

Competency-based districts and schools demonstrate the capacity to monitor growth of every single student's learning. The transparent monitoring processes communicate progress, reinforce the process of learning and drive continuous improvement. As described previously, transparency eliminates mixed messages and false signals about student

learning. The wealth of data on student learning generated through competency-based education is powerful in providing feedback to educators about their own effectiveness and can lift up potential areas of bias as well as highlight areas for improving instruction.

There are several challenges in fully implementing a system that can monitor student growth and progress. Many of these challenges derive from the reality that competency-based systems, however innovative, continue to operate in the context of high stakes accountability as mandated by the federal government. As such, districts and schools have to negotiate competency-based structures with aspects of the traditional paradigm. More so than other competency-based principles, monitoring and responding to student progress, proficiency and pace forces educators and leaders to confront these tensions because they interact with the bedrock of our current accountability system: grade level proficiency. As challenging as this is, competency-based schools and districts engage these tensions head on.

Schools and districts must navigate tension between defining progress by proficiency on grade level standards and individual students' trajectories along learning continua.

In their purest form, competency-based systems are fully student-centered: they are designed to ensure every student is working toward successful completion of graduation competencies, progressing along a continuum of learning at a pace that ensures they will reach proficiency while being engaged, no matter where they are, by instructional supports that challenge and support them within their zone of proximal development. While some may worry that practices of meeting students where they are and “personalizing pace” might perpetuate learning gaps and/or lower rigor of instruction, both of these practices are in fact highly aligned with the learning sciences and equity. When students are met where they are in their learning, they can attach new knowledge to prior knowledge and advance their learning. When they have opportunities to be supported on personalized pathways with targeted supports to keep pace toward proficiency, they are consistently engaged in their zones of proximal development and can therefore develop true mastery.

To make this approach to defining progress and pace work in a paradigm that still assesses students at grade level and holds educators and schools accountable for grade level proficiency, educators take creative approaches. This begins with recognizing that students enter learning at different starting points and then entails meeting students where they are - at those starting points — with the instructional strategies they think, in their professional judgment, will work best. Strategies may include scaffolding to make learning processes explicit, organizing instruction at students' performance levels, unbundling grade level standards to prioritize the most important content and skills and/or anchoring instruction to grade level standards while engaging strategies to build prerequisite knowledge. As districts take greater advantage of competency-based structures, they will have greater opportunity for more student-directed and non-linear approaches to learning. See the paper, *Meeting Students Where They Are*¹⁷ for a deeper discussion.

Reflection Questions

What processes and strategies are used by districts and schools to measure and monitor student growth based on student performance levels?

How does the school monitor and respond when student pace is slower than anticipated within the time-bound targets?

What types of strategies are in place to reinforce a focus on learning and growth given the grade-level focus of state accountability systems?

Do educators and leaders have time to engage in dialogue and continuous improvement processes as they resolve tensions related to progress and pace?

Farther away from the purely student-centered ideal, some districts and schools will continue to think about the starting point of student learning as the beginning of the semester and the beginning of a course or a grade level. Students will start at the same place with the assumption that all students will complete a set of standards, even while fully acknowledging that students have different skills. Educators will provide additional support during the day and schools will plan for continued support after the semester is completed until students demonstrate mastery on all the standards. While this is a reasonable starting point for districts and schools earlier on the pathway to becoming fully competency-based, it is a limited strategy in the long term. Teaching to grade-level standards and using scaffolding to build access to the grade-level content cannot be effective if its done without the commitment to helping all students address and fill gaps in their skills. This is hard, even impossible to do if educators do not know what students' gaps are, do not have instructional flexibility to personalize for students and/or do not have the ability to flex time in the day, unit or year to ensure that all students are actually mastering standards. For districts and schools taking this approach, information management systems are essential to enable educators to monitor and record student progress along a continuum of learning toward successful graduation (rather than just with traditional grades within courses or semesters), and flexibilities in instruction and instructional time are paramount.

Schools and districts must ensure all students are receiving adequate supports to advance at a pace that moves them toward graduation.

Pace, a ratio of individual student growth and time, is an important indicator in personalized, competency-based systems as it indicates whether students are adequately progressing along their trajectory and receiving timely, responsive additional supports if not yet proficient. The equity concerns about pace are whether students are on a pace that will ensure success, if they have opportunities for deeper learning (described further on), and will they have the supports they need when they need them, and can they move on when ready.

If a student entering school with significant gaps in academic knowledge and skills is progressing two grade levels over one year, it is a pace of 2.0 whereas a student at grade level may be learning at a pace of 1.0. It is easier to think of the student at grade level as being "faster" but in fact that student is covering less distance on the learning continua. Regardless of where students are on their personal learning trajectory, schools need to monitor to ensure that students are progressing at a pace of 1.0 level or more per year. Some schools set goals of 1.25 or 1.5 for students that are performing at levels below their grade with the intention of getting them on-track to graduation over time.

Schools aspiring to promote personalized pacing in the current paradigm will grapple with several challenges. First, it is important to prioritize deep relevance and engagement, application of learning and lifelong learning skills; schools and districts must balance pressures to accelerate learning with their commitment to authentic learning. Second, state end-of-year summative testing for accountability purposes puts pressure on districts and schools to cover broad stretches of content and skills so that students are more likely to perform well on grade level assessments using domain sampling that draws items from overall, broad knowledge of a content area. Equity-focused districts and schools will need to contend with tension between ensuring students perform well by knowing large volumes of content (breadth) and ensuring students are preparing for increasingly complex learning by developing the transferable structures and enduring concepts that support higher order learning (depth). Third, keeping students on pace toward graduation will often require "going back" to address learning gaps. Educators will encounter tension between "going slow to go fast," or "going back to go forward" and the pressure to keep students focused on content and skills that are at grade level. The primary equity concerns about pace is focusing only on grade level standards and never helping students to build their foundational base they need, providing inadequate support so that students do not make progress, and mistakenly thinking that covering the curriculum is the same as student growth. Educators will need to tackle these concerns and utilize continuous improvement processes to ensure they are constantly adapting their approaches.

Schools and districts must ensure all students have opportunities for building higher order skills and inquiry-based learning.

If the definition of student success includes academic knowledge and the expertise to apply it, then all students must have the opportunity to build higher order skills by engaging in inquiry-based learning (project-based, deeper learning, extended learning in the community). Many schools using grading scales of 1-4 set a level 3 as indicating proficiency and a level 4 to indicate deeper learning or honors level work. The risk is that students that are performing well below their grade level will be pressured to “move on” when reaching proficiency and never have the opportunity to extend their learning or engage in deeper learning.

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. One strategy is to include performance-based assessment or performance tasks so that students have opportunities to demonstrate their learning in other ways than quizzes and tests that may emphasize lower levels of depth of knowledge. In this way, all students, no matter their performance levels, can have the opportunity for learning how to apply skills. Other strategies include dedicating time to project-based learning in inter-sessions or establishing requirements for capstone projects each year.

A final note: 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.

POLICIES AND PRACTICES MAY INCLUDE:

- 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.

Examples of Look-Fors

- Students are able to tell you what level they are working on, what they are working on, what they need for support and how they will know when they reach proficiency.
- Multiple opportunities for students to access extra support and instruction.
- Students engaged with robust inquiry or projects.

Examples of Red Flags

- Teachers or students referring to “fast learners” or “slow learners.”
 - Scaffolding that helps students have access to a curriculum without helping them to actually build proficiency in the prerequisite skills needed for the curriculum.
 - Students unable to advance beyond grade level.
-



Respond and Adapt to Students Needs Using Continuous Improvement Processes

DESCRIPTION

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. Data can also be used to seek out inequitable practices, identify and examine bias and challenge predictability of success based on demographic factors.

KEY CHARACTERISTICS

- **Collective responsibility** - Stakeholders — educators, leaders, students and families — take responsibility for student learning and commit to improving so that all students succeed.
- **Growth mindset** - Improvement is approached as a learning process where failure is an opportunity for reflection and growth.
- **Accountability and improvement** - Districts and schools balance accountability and improvement, ensuring that all stakeholders are held to high standards while allowing room for growth and development.
- **Robust data systems** - Data systems provide valid, reliable, timely data to support continuous improvement practice. Districts seek to have data on student growth and rate of learning based on a learning continua, not just grade-level standards.
- **Multiple measures** - Districts and school utilize multiple measures of data. Multiple measures (formative, summative, diagnostic and performance assessments, student work) are used to understand academic outcomes. Multiple measures also include social emotional, cognitive and noncognitive data points to understand students' holistic development.
- **Robust data practice** - Districts and school have regular, reliable and rigorous data practices in place. Practices are collaborative and inclusive and support continuous improvement.
- **Agile operations** - District and school operations have the flexibility to be adapted as continuous improvement processes reveal the need for updating practices, processes, systems and supports.

WHY IS RESPONDING AND ADAPTING TO STUDENTS USING CONTINUOUS IMPROVEMENT PROCESSES IMPORTANT FOR EQUITY?

Creating an equitable education system demands that we reduce the predictive value of race, gender, class and disability in the classroom. Instead of pointing to children or their families as the problem when students aren't successfully learning, competency-based education engages in continuous improvement to revisit school designs, culture, structure and pedagogy. The fundamental belief at the core of continuous improvement practice is this: ***all students can learn at high levels when provided the right experiences and supports in the right environment, and it is our job — we, the educators and leaders, in partnership with students and families — to get better until we have provided them these things.***

Competency-based education is learning-centered. Students continue to learn until they reach mastery. Leaders and educators continue to learn about instructional strengths and weaknesses, negative impact of bias and institutional policies, and which students need more support until they all succeed. To make this possible, improvement practices balance learning and accountability. Learning processes focus on continual progress toward desired outcomes, while

accountability practices focus on ensuring educators, leaders and schools are performing adequately to support students. Learning and accountability structures are embedded into the system through transparency and sophisticated data-driven continuous improvement processes. Competency-based schools — in their commitment to one hundred percent of students succeeding — constantly engage in reflection, learning and adjusting instructional and assessment practices, culture, structures and policies.

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 a tool to test new strategies, change practices and reduce bias.

Seeking to uncover pockets of unmet needs, unidentified talent, and bias (both personal and systemic) starts with asking questions that drive improvement and performance. Educators and leaders might think of these as action-based research questions: inquiries posed and studied to surface evidence-based insights, which generate ideas for future action, which lead to hypotheses that can be tested, leading to evaluation of outcomes, then to changes in practice. Any number of protocols and processes exist of evidence-based inquiry. What matters most is not which protocol districts and schools use, but the quality of their questions, hypotheses and tests, the consistency and rigor of their process, the degree to which their learning is collaborative, reflective and trusting, and the strength of their ability to implement changes in practice that emerge from their inquiry. In truly equitable systems that seek to empower students as self-directed learners, students are also engaged in continuous improvement. Like educators and leaders, they engage in cycles of inquiry about their learning processes in order to improve their own outcomes and contribute to the improvement of their peers, educators and school.

Questions that educators and leaders may want to ask include the following.

- What patterns do we see about students who are struggling and thriving? What may be contributing to these patterns? What contributing factors result from our own practice?
- What patterns do we see about student's mastery of specific content and skills? At what point in a process are students disengaging or struggling to master these skills and strategies? What might we infer about the content and skills themselves? How might our own practice be contributing?
- Which strategies are most effective in supporting students with prior knowledge significantly less than grade level expectations?

Valuable data is not only based on academic achievement. 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.

Reflection Questions

What are the formal continuous improvement processes that use data and feedback to support student learning, improve instruction, inform educator professional development and drive school and district improvement?

What strategies are in place to uncover bias, increase the use of effective strategies to engage, motivate and help students learn, and ensure that historically underserved students are learning and growing?

POLICIES AND PRACTICES MAY INCLUDE:

- 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 educators 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.

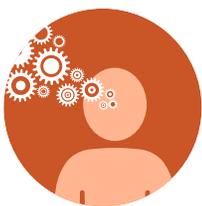
Examples of Look-Fors

- Districts and schools have common, reliable, rigorous inquiry and improvement practices in place. These are a part of an educator's work day.
- District and school leadership using management reports that monitor student growth and identifies where it is not as expected.
- Teachers using student data to develop personalized learning plans for themselves.
- Schools testing out new approaches and using data to determine if it is more effective.

Examples of Red Flags

- Schools still emphasizing covering the curriculum and passing students on at the end of the year to the next grade level without reaching proficiency.
- District policy that manages resources without giving autonomy to schools to use funds flexibly.

C. PEDAGOGY



Develop Shared Pedagogical Philosophy Based on Learning Sciences

DESCRIPTION

Districts and schools are designed around shared and explicit pedagogical philosophies based on research in the learning sciences including neuroscience, engagement, motivation and child/youth development. Important pedagogical approaches to include are school designs that support consistent relationships, Universal Design for Learning, culturally responsive strategies and nurturing the skills for student agency.

KEY CHARACTERISTICS

- **Learning sciences** - Pedagogies reflect the most recent research about how people learn, ensuring all students experience learning environments, feedback and experiences that result in powerful learning outcomes.
- **Shared understanding** - Educators internalize understanding of pedagogical expectations and a commitment to using learning sciences to promote equity.
- **Development opportunities** - Educators have powerful personalized opportunities to develop the competencies required of practitioners of the learning sciences.

WHY IS DEVELOPING A SHARED PEDAGOGICAL PHILOSOPHY BASED ON THE LEARNING SCIENCES IMPORTANT TO EQUITY?

Students need robust learning experiences, effective instruction and assessment, and opportunities to broaden their horizons to help them discover their own potential. Students that are from more educated, privileged families receive multiple opportunities for learning and significant support throughout their lives. Conversely, students from lower income and less educated families are much more dependent on schools to offer powerful learning experiences and effective instruction. Thus, ensuring that the pedagogical philosophy and the instructional capacity of schools draws upon the most recent research on learning is essential in equity-focused systems.

The learning sciences, drawing from cognitive, psychological, developmental and biological domains, can inform school design, curriculum and learning experiences, instruction and assessment for serving diverse communities of learners. Although the body of research on the science of learning is greater than can be summarized in this paper, a few findings from the summary paper *The Nature of Learning: Using Research to Inspire Practice*¹⁸ are particularly important when considering educational equity.

Learning is an activity carried out by the learner. Schools cannot expect educators to deliver curriculum and hope students will simply absorb it. Instead, learners need to become engaged in their learning. Strategies to build the lifelong learning skills of cultivating a growth mindset, self-regulation and managing emotions will all be valuable to optimize learning. Furthermore, strategies to build intrinsic motivation and engagement will also be valuable in helping students put forth the effort needed to learn. Ensuring that students feel safe, respected and have consistent relationships with adults are important. Districts and schools need to think about the impact of institutional policies and individual bias that may be undermining learning. The mindset about whether intelligence is fixed or can grow based on effort shapes how humans learn.¹⁹ Fixed mindsets are limiting; growth mindsets are enabling. Mistakes become an inherent part of the learning process rather than an outcome. When students understand themselves as having agency and choice, they begin to own their learning and are more motivated and engaged.

Learning occurs through interaction with one's environment. The human brain develops over time through exposure to conditions, including people, experiences and environmental factors. Learning, then, is a contextual process resulting from interactions and vulnerable to environmental conditions. Learning occurs best in conditions that support healthy social, emotional and neurological development. Because brains develop through interactions with one's environment, each individual's brain is unique. Learning must account for neurological traits in multiple ways, including recognizing how each individual's brain functions differently in relationship to different subjects and domains, as well as accounting for the effects of trauma and other developmental delays.

Learning is constrained by capacity limitations of the human information-processing architecture. Students can only take in limited information within working memory and can benefit from strategies that help concepts and skills become rooted in long-term memory as routine knowledge. Thus, schools need to consider that some students may be entering school with worries about their families, emotional issues from witnessing or experiencing violence in some form, or

concerns about where their next meal or next bed is coming from. Efforts to create more school-wide routines, helping students to learn to manage their emotions and comprehensive supports can all be helpful.

Optimal learning takes prior knowledge into account. Under the current state accountability systems, educators feel pressure to “cover the curriculum” regardless of where students are in their learning. Yet, research on the learning sciences is clear that it is important to use instructional strategies that consider student prior knowledge and skills. Thus, some students may need more support and time to build up skills to tackle grade level standards which is difficult to do under a pacing guide. In addition, the right level of size of the tasks or steps in learning will vary based on students’ previous educational experiences, their emotions, the degree to which prerequisite skills have become routine knowledge or not and the level of support.

Optimal learning also integrates knowledge into increasingly complex, transferable knowledge structures. Students must develop schema that help them organize new knowledge in ways that make it accessible for future application. Here, too, “covering the curriculum” alone will not help students develop transferable mental models that support future learning at increased levels of rigor and complexity. As educators aim to prepare all students for rigorous definitions of success that promote lifelong learning, it is imperative that they help students develop the cognitive structures and systems that support higher order learning in the future.

Pedagogy rooted in the learning sciences is essential in an equitable system because it ensures that all students, regardless of identity and background, have equal access to learning experiences that advance cognitive and non-cognitive development in service of building academic knowledge, application skills and lifelong learning. It is not enough, however, to simply define pedagogical expectations and standards; educators need to understand pedagogical expectations and standards, internalize the commitment to using these strategies to promote success for all students, and receive support to develop the new competencies needed to engage in new instructional strategies. Further, educators need support to develop their skills as instructional designers.

Instruction informed by the learning sciences require that educators do more than deliver content; they require that educators continually design and redesign experiences and instructional strategies that reflect what students need. In short, educators need to have authentic, shared understanding and powerful development opportunities in order to become practitioners of the learning sciences. Another finding, that a proportion of expertise is not conscious,²⁰ has significant implications for supporting educators to build their own capacity. If they are not aware of their own expertise and the strategies they are using it makes it more difficult to introduce new practices. Thus, strategies to help create more transparency and awareness of beliefs, strategies and practices can be helpful in creating the conditions for building instructional capacity and integrating strategies for special populations into the core instruction.

Reflection Questions

To what degree is there a shared understanding of effective instruction and assessment based on the learning sciences?

In what way are educators supported in differentiating and personalizing learning in order for students to reach common, rigorous educational outcomes and discover talents and interests?

POLICIES AND PRACTICES MAY INCLUDE:

- 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.
- Pedagogy is designed to build self-directed learning skills.
- Pedagogy is designed to ensure students have opportunities to apply learning.

Examples of Look-Fors

- Districts and/or schools have a shared pedagogical philosophy.
- Within professional learning communities educators engage in inquiry to understand research to better support students that are struggling.
- Professional learning draws upon the learning sciences and is personalized for educators.
- Learning experiences are designed using UDL and literacy strategies are taught across the curriculum.
- Scheduling allows for project-based learning and/or real-world applications.
- Capacity has been built around performance-based tasks and assessments.

Examples of Red Flags

- There are posters on the walls for growth mindset but assessment and grading practices do not leave opportunity for revision and reassessment.
- Teachers are using primarily lecture and direct instruction in 50 minute classes with little opportunity for students to actively apply their learning.
- Assessments rely heavily on tests that students are expected to take on the same day.



Supporting Students in Building Skills for Agency

DESCRIPTION

Agency allows individuals to take purposeful and meaningful action in pursuit of their goals and aspirations. It is a vitally important aspect of lifelong learning, and it is actively cultivated in competency-based systems. Schools are designed to develop the mindsets, motivation and skills that comprise agency. Mindsets include a belief in one's own efficacy and locus of control to affect change. Motivation includes a genuine purpose for learning, intrinsic motivation and persistent effort. Skills include self regulation, metacognition, social and emotional skills and specific academic behaviors. Culture and learning environments offer students multiple opportunities to practice and receive feedback in developing mindsets and skills.

KEY CHARACTERISTICS

- **Active learning** - Engage students as productive, engaged actors in their own learning.
- **Student decision-making and choice** - Provide opportunities for students to have voice and ownership in decisions about their learning. Provide opportunities for increased leadership in classrooms, school activities and school governance.
- **Timely and transparent information** - Equip students with accurate information to support informed decision-making.
- **Mindsets, motivation and skills** - Proactively develop the mindsets, intrinsic motivation and self-regulation skills that contribute to agency. Develop these over time, on a developmental spectrum, with attention to ensuring all students are developing the necessary skills to become independent learners.
- **Personalization** - Leverage student self-direction to create opportunities for more targeted, individualized and interest-driven learning.

WHY IS SUPPORTING STUDENTS IN BUILDING SKILLS FOR AGENCY IMPORTANT TO CREATING FOR EQUITY?

The learning sciences emphasize that learning is something done by students, not to or for students. In order to learn and develop the skills for lifelong learning, students must be supported in their development as independent learners. One of the most transformative changes in personalized, competency-based education is the shift from expecting students to be compliant, passive learners to engaging them as productive, active learners. As students become active learners with increasing ability to guide their learning, roles and power dynamics in the classroom change. Students have greater ability to make decisions, act on what is important to them and begin to build intrinsic motivation. With guidance from educators, students can co-design their learning so that it is relevant to their lives. By extension, personalized and competency-based learning environments help prepare students to take more active roles in affecting change in their own lives and in their own communities beyond their educational experience. Promoting agency promotes equity by ensuring that students develop into adults who have the capacity and resources to direct the course of their own lives and counteract injustices in the world around them.

Empowering students with agency means providing them with meaningful choice. Students can only make meaningful choices about their learning when armed with a critical resource — information — to inform their self-direction. For this reason, schools and educators must provide students with timely, transparent access to information about learning targets, calibrated definitions of mastery and where they are in their learning progress.

Empowering students with agency also means providing them with real opportunities to develop the skills necessary for self direction. Teachers proactively develop these skills in students and construct learning experiences that create opportunities for students to practice self-regulation and academic behaviors. Classroom management strategies are organized to enable students to practice decision-making at appropriate developmental levels. Teachers support students to build skills, using gradual release that empower students and increase agency — not simply handing over the reins.

Reflection Questions

In what ways do students have opportunities to develop, practice and apply the mindsets, motivations and skills they need to develop agency?

In what way does your district and school demonstrate that student voice and leadership is valued?

How are teachers supported in building the understanding and competencies to help students build the skills to become lifelong learners?

Many schools create opportunities for students to grow agency by taking on increasing levels of responsibility from the classroom to activities to clubs to school governance at the highest levels. These opportunities build skill development and contribute to a culture of respect and empowerment. It is important to ensure they are offered to a range of students and that, over time, all students have opportunities for leadership roles.

Beyond increasing motivation and developing essential skills, prioritizing agency can increase schools' capacity to personalize and promote authentic learning. When students take more responsibility for their learning, educators can step away from the front of the classroom and work with students in small groups or provide individual attention. Teachers are able to better meet each student where they are in their learning and development, helping them build the skills they need to progress along learning pathways. When educators understand that students develop agency and learn best when they are engaged and motivated by their personal goals, the educators must begin to organize learning experiences so that students have choice, voice and opportunity to make connections to their lives. Focusing on agency requires and helps educators design authentically engaging and relevant learning, which is highly aligned with culturally responsive instruction.

POLICIES AND PRACTICES MAY INCLUDE:

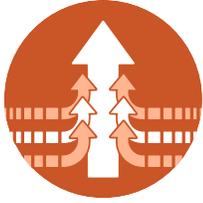
- All policies and procedures are designed to promote learning and develop the mindsets, motivations and skills that promote agency. Students have opportunities to develop these competencies in class routines, core learning experiences, through coaching and advisement and in extended learning opportunities.
- Students have transparent and timely access to information about learning targets, definitions of mastery and their own progress in order to make decisions about their learning.
- Students have access to culturally responsive curriculum, flexible pathways and multiple opportunities to learn and demonstrate learning with common assessments and common outcomes.
- 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.

Examples of Look-Fors

- Districts and schools invest in nurturing a growth mindset including building the specific skills such as managing self-talk and goal-setting for students and adults.
- Teachers use similar routines and practices to support students taking ownership so that students have opportunity to practice. Demand on working memory is reduced when similar routines are used across a school rather than students trying to navigate different rules and practices in each classroom.

Examples of Red Flags

- There are formal processes to provide feedback and communicate progress in lifelong learning skills needed for student agency but educators do not receive support in how to coach or assess the skills in ways that guard against bias.
- The school has created multiple leadership opportunities in governance but only allow those students who are on-track (i.e. at grade level) to participate.
- Students are encouraged to make choices about their learning, including being able to move forward at a faster pace than other students, but then are unable to advance above grade level.



Ensure Consistency of Expectations and Shared Understanding of Proficiency

DESCRIPTION

Expectations of learning objectives and rigor are moderated with all students being held to the same high standards, including demonstrating mastery and fluency in the foundational skills.

KEY CHARACTERISTICS

- **Valid and reliable** - Districts and schools have accurate, standards-based definitions of proficiency. These definitions are transparent and available to all educators and students. Rubrics and other tools are used to communicate proficiency.
- **Moderated** - Districts and schools have systems and processes to ensure consistency in the way that proficiency is scored. Educators work together to ensure inter-rater reliability.
- **Authentic assessment** - Systems of assessment are valid and reliable, and produce data that accurately assesses student mastery of standards. Assessment is also meaningful and valuable to the learning process, supporting reflection and continuous improvement.

WHY IS CONSISTENCY OF EXPECTATIONS AND SHARED UNDERSTANDING OF PROFICIENCY IMPORTANT TO EQUITY?

Traditional education systems demonstrate high degrees of variability: they permit different understandings of what it means to be proficient both between educators (different expectations in every classroom or school) and between students (different definitions being applied to students, often based on their race, class and perceived ability). Many factors contribute to this variability, including educators working in isolation; A-F grading systems that are variable based on student behaviors, assignments and summative tests; biased educator perception; and different expectations for students within and across schools. In these contexts, inequities are produced and reproduced. Students are told they are proficient when they are not resulting in widening learning gaps, neither students nor educators can access accurate information about to inform instructional decision-making, and students lose trust in the educational system resulting in decreased engagement and motivation.

In competency-based education systems, attention to transparency and consistency in determining proficiency are powerful strategies that interrupt the replication of inequities. They achieve greater equity by evaluating student outcomes against a constant — a standard with rubrics clearly outlining expectations for what evidence is needed for successful outcomes — rather than evaluating student outcomes against a single educator’s estimation of proficiency. Scoring student work is calibrated; educators work collaboratively to define what proficiency looks like and develop rubrics with sample evidence of student work. Learning targets and proficiency determinations are transparent, and formal systems such as moderation processes are developed to improve consistency of teacher judgments. Student progress is measured based on outcomes demonstrating proficiency and mastery.

Shared, valid and reliable definitions of proficiency “come to life” through meaningful systems of assessment. Unlike traditional systems, which prioritize summative assessments and often teach to high stakes standardized assessments, competency-based systems demand assessment literacy: the ability to use meaningful assessment to design and drive powerful learning that leads toward common outcomes. Systems of assessment are developed, selected and aligned to balance breadth of content with enduring understanding of key concepts and skills. Further, they ensure

students develop higher order skills, not simply academic proficiency. Competency-based districts and schools emphasize formative assessment (assessments for learning), that make learning targets and proficiency determination transparent. Districts and schools integrate assessment as part of the learning process: assessment represents what students need to know, provide students with low-stakes opportunities to practice and self-assess what they know throughout the learning cycle and provide students and educators with feedback they can use to improve learning outcomes.

POLICIES AND PRACTICES MAY INCLUDE:

- 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.

Reflection Questions

What types of processes are in place to support educators in building a shared understanding of proficiency of academic skills, social emotional skills and habits of success?

To what degree is there consistency and fairness in determining proficiency with high expectations held for all students? Are moderation processes in place so that teachers have a shared understanding of proficiency for each grade level? Are calibration processes in place so that teachers score and grade student work consistently?

Does assessment promote a positive experience for students, including timely and accurate feedback that supports their learning?

Examples of Look-Fors

- Formal moderation and calibration practices that help educators build a shared professional judgment in determining proficiency and assessing student work consistently.
- Example of student work is on the wall or available through online resources that demonstrates what proficiency looks like.

Examples of Red Flags

- Students can tell you who are the easy educators and the hard educators in which the hard educators have high expectations for students to master the knowledge and skills.
- Grading policy gives points for behaviors so that students receive a signal that they are proficient when they are not.
- Grading practices use a bell curve rather than standards.
- Schools within the same district are having different expectations of what it means to be proficient across grade levels.

The efforts to create more equitable systems of education will always be shaped by the local context including student population, community dynamics and historical patterns. These principles provide insights into the importance of implementing with fidelity and preparing for some of the equity issues that may emerge as districts and schools make the transition toward competency-based education. However, every district and school needs to ask the question: **What patterns of inequity currently exist in our system that may continue to undermine student learning in a personalized, competency-based system and how can we mitigate its impact?**

V. Charting the Course

It is up to us, to all of us, who believe in a world where all students are fully valued, fully supported in their learning, and fully prepared to meet the challenges of life, college and careers to keep equity at the core of our work. If there is any doubt whether equity is merely an aspect of competency-based education or its central feature, we might ask ourselves this question: ***will we be able to sustain the political and social will needed to support the shift to personalized and competency-based education if we cannot demonstrate that all students benefit?*** No, we will not. We have both moral and practical imperatives to ensure that our approaches to competency-based education put equity at their core. States, districts and schools and the organizations that provide support services must fully embrace the equity challenge in implementing competency-based systems. This is not work for other people to do, it is work for each one of us in our respective roles, organizations and networks. Individually and as a collective, we must deepen our knowledge about equity strategies and develop responses.

Below are a number of ideas for action steps that can be taken to advance our knowledge and effectiveness in these issues. Some of these are action steps that iNACOL and *CompetencyWorks* will take on; others are initiatives for other organizations to consider or require substantial collaboration. Please consider these action steps as a starting point for discussion and not a finite list. Certainly, there are many ways to undertake these action steps in ways that build on the values of competency education and strategically engage other partners. For example, there are ways to put into practice the ideas below that will either build a diverse leadership or continue to emphasize white privilege. It is up to all of us to overcome the historical patterns of race and racism in the United States — in our professional lives, in our communities and in our schools.

THE EQUITY CHALLENGE AND PROPOSED ACTION STEPS

One cannot simply say that competency education is designed for equitable outcomes — one has to intentionally act to serve historically underserved students, identify bias, challenge patterns of institutional racism and classism and ensure that all students are consistently held to high expectations. Together, the leaders in competency education — in the classroom, in school and district leadership roles, in intermediary organizations and in the halls of state government — must ensure that the equity is not simply rhetorically at the heart of what we say we do, but actually a part of our daily actions, producing greater achievement for historically underserved students and greater equity in overall outcomes.

Leadership is not determined by position. It is the ability to create and sustain conditions for operationalizing a school's core values and goals. Leadership must be fully committed to equity, skilled at distributed and/or adaptive leadership strategies that value transparent decision-making processes and dialogue, and must demonstrate willingness to search for and reflect on personal biases. This includes sharing responsibility for racial and cultural diversity so that we can fully draw upon the full range of knowledge, experience and expertise available.

RECOMMENDED ACTION STEPS FOR SCHOOL LEADERS AND EDUCATORS

- ➔ Assess the current status of equity in your school. Leverage a variety of data points to get a clear picture of how well you are serving all students: proficiency, growth, attendance and other engagement data, retention, discipline, student perception, staff perception, family perception, teacher mobility and others. Staff might also consider forms of “empathy” data including interviews, observations and shadows. Study data holistically to answer the question: **how well are we serving all students?** Identify specific equity challenges that are presented in the data.
- ➔ Engage in a planning and design process to determine possible contributing factors and prioritize action steps. Engage staff, families and students in this process. Use a root cause analysis protocol to identify possible connections between current culture, structure and pedagogy and equity challenges. Prioritize challenges by asking the question: **which of these, if we were able to address them, would result in the most improvement for our students and community?**
- ➔ Engage in brainstorming, leveraging the content of this report.
 - What aspects of **culture** might we address? How might we improve our learning orientation, definition of student success, or staff capacities?
 - What aspects of **structure** might we address? How might we improve our approaches to proficiency, pace and progress?
 - What aspects of **pedagogy** might we address? How do we want our educational environments and experiences to change for students?
- ➔ Co-create mechanisms and processes for setting clear and consistent learning objectives, for calibration and moderation of professional judgements using evidence of student work, and what is considered proficient on core academic skills, higher order skills and the skills related to lifelong learning in order to ensure that districts and schools serving communities of color or low income communities don't have lower expectations. This process of moderation allows educators to share their understanding of standards and expectations for proficiency in order to improve the consistency of their decisions evaluating student learning and proficiency level based on student evidence.
- ➔ While ALL aspects of competency-based education are interrelated and essential, it is not possible to implement all at once. Based on the problems you want to solve, prioritize possible actions by asking the question: **which of these will have the greatest impact on the problems we want to solve?** Identify specific starting points and action steps. Ensure that key voices are at the table. In the process of prioritizing, consider that some features are more foundational than others. Prioritize culture building to create the conditions needed for change. Ensure that there is a common vision of success, without which this work is aimless. Do not neglect

pedagogy, as it is essential to be sure that the student experience is at the heart of any change. Continuous improvement processes will be essential no matter where you start, in order to ensure that new strategies are effective and address the problem you aim to address. Also note that many structural changes are challenging to implement at the school level. Where possible, leverage resources and partnerships in your district or network or with external support partners to address desired changes in proficiency, progress and pace.

RECOMMENDED ACTION STEPS FOR EDUCATORS, EDUCATION LEADERSHIP AND THE FIELD TO EXPAND EQUITY-ORIENTED LEADERSHIP

- ➔ Take **personal accountability** for overcoming 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 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 can 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.
- ➔ Create opportunities for leadership to build and receive feedback on **distributed leadership strategies** that demonstrate respect, build trust and empower others. When district and school leaders use a shared vision and clear guiding principles to drive decision-making, they also empower others to participate in decision-making.
- ➔ Place a high priority on equity in the hiring process. School boards can seek superintendents who have the skill and courage to identify and challenge inequity and inequitable practices. Superintendents can embed questions in hiring district staff and principals about how they have addressed inequity, their knowledge of equity strategies and demonstrated ability to improve achievement for historically underserved students. Districts should seek to ensure that their educators, leaders and staff reflect the communities they serve in order to promote equitable representation and increase the cultural relevance of school design, culture and pedagogy.
- ➔ Seek partners who share a commitment to equity, demonstrate diversity in staffing and design products and services with intentional equity strategies that ensure historically underserved students will fully benefit.

RECOMMENDED ACTION STEPS FOR THE FIELD TO DESIGN FOR AND STRENGTHEN EQUITY STRATEGIES IN MODELS AND IMPLEMENTATION

- ➔ Build greater knowledge about how districts and schools are designing and implementing competency-based systems that embed equity strategies to fully meet the needs of historically underserved students. This should include identifying any specific ways that the culture, structure and policies in traditional systems are contributing to reproducing inequity, and/or are in conflict with competency-based systems. Organize knowledge on equity strategies around the three-part National Equity Project definition²¹ of educational equity.
- ➔ Build greater knowledge about strategies that support the “whole child.” Explore, study, and share effective practices for integrating trauma-informed supports, social emotional learning, and positive identity development into school design, culture, and pedagogy. Explore strategies for community-school partnerships that can increase schools’ capacity to address the unmet health, mental health, housing, and financial needs of the students and families they serve.
- ➔ Determine a baseline of where field organizations are in terms of diversity and knowledge and strategies related to equity and then support them in setting goals for building their capacity. Intermediaries, school designers and technical assistance providers should be expected to have diverse staff with organizational capacity for serving the different populations of historically underserved students. Furthermore, they should be intentional and transparent about how their approach and model takes equity strategies into consideration.
- ➔ Evaluate and then catalyze knowledge building about how equity strategies are embedded into professional learning for personalized, competency-based education by providers and districts. This may include, but not be limited to, professional learning on school design, pedagogy, knowledge of equity strategies, operations (scheduling and calendars), grading practices and disciplinary policies.
- ➔ Crosswalk equity strategies, including culturally responsive strategies, with personalized learning strategies to determine the overlap and how personalized learning strategies can be strengthened to support greater equity.

RECOMMENDED ACTION STEPS FOR THE FIELD TO BUILD CONSISTENCY IN STUDENT LEARNING

- Expedite knowledge of moderation processes by launching an initiative to support districts and schools to develop moderation processes that are both vertical (stretching from Kindergarten through the first year of higher education) and horizontal (within departments within a district, across districts, across networks of schools).
- Incentivize states to develop initiatives to build capacity and scale around performance-based assessments, cross-district and cross-school moderation and develop next generation state accountability to be more aligned with the science of learning (e.g. New Hampshire's PACE initiative).

VI. Concluding Comments

Our country is at a turning point in its understanding of itself as an inclusive nation based on a commitment to liberty and justice for all. With a profound demographic shift underway, it is anticipated that by 2055, there will not be a single racial or ethnic majority in the U.S.

Although absorbing our nation's attention, challenging inequity in education is not about race and ethnicity alone. Our work as leaders in education is to work now to transform the education system so that it is fully designed for all students to be successful. Students have been historically underserved because of the income or education levels of their family, because they speak a home language other than English, or, because of a disability. An emerging concern is to provide a safe and respectful learning environment for Lesbian, Gay, Bisexual and Transgender (LGBT) students. Our work is to ensure that every student has a safe environment to learn, receives effective instruction and timely support and is provided with the opportunity to fully develop their potential as they prepare for college, career and life.

Personalized, competency-based systems have the ability to empower individuals and enable educators to disrupt the historical dynamic of sorting students and replace it with one that seeks to educate 100% of students including those that may have had their education interrupted and desire to complete their diploma. Competency-based structures without personalized approaches will only provide part of the solution. When implemented together with fidelity, a strong focus on equity and a commitment to continuous improvement, these approaches can support all students to reach high levels.

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. Accountability starts when districts and schools taking collective responsibility for every student to receive the support they need to learn. 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.

The equity framework offered in this paper is certainly not the end-all solution in this centuries-long struggle for equality and justice. They are just steps in what is hopefully the right direction. The discussion offered here is a guide to spark challenging conversation, to cultivate deeper commitment and deepen our capacity to challenge bias and inequity in district systems, in the classroom and in the attitudes that we bring to our work. It is very much up to the adults in the system, from educators to federal policymakers, to take responsibility to learn as much as we can about improving equity and hold ourselves accountable for putting it into action.

We know that we can turn the tide: Girls and young women, once thought not to need an education, now attend and complete college at higher rates than young men. We can lift expectations and change America's trajectory. To do so, we must turn our values into action. We must bring the vision of educational equity into all the decisions, big and small, throughout our daily lives.

Appendix A: Glossary

We find ourselves in a highly creative and visionary time of deconstruction and re-design. Terminology is changing, refining, and expanding. Identifying points of intersection lead us to deeper understanding of how concepts can be woven together. The innovations of practitioners lift our expectations and open new doors. Thus, we offer the following terminology to help us communicate with each other with the understanding that it is likely that many will use different terminology or assign different meaning.

Assessment Literacy

Assessment literacy is the collection of knowledge and skills associated with appropriate assessment design, implementation, interpretation, and, most importantly, use. A critical aspect of assessment literacy is that educators and leaders know to create and/or select a variety of assessments to serve different purposes such as improving learning and teaching, grading, program evaluation, and accountability. However, the most important component of assessment literacy is the degree to which educators and others are able to appropriately interpret the data coming from assessments and then take defensible instructional or other actions.

Calibration

Calibration is a process of adjusting results based on a comparison with a known standard or “calibration weight” in order to allow defensible comparisons of student assessment results; for example, across different entities (e.g., schools, districts, states). In order to define a calibration weight, we need to have something in common, either the same students taking different assessments or different students taking the same assessments. The latter is generally more practical, so common performance tasks have been administered to students in different schools, and district performance assessments serve as a “calibration weight” to evaluate the extent to which teachers in different locales evaluate the quality of student work similarly.

Comparability

Comparability is defined as the degree to which the results of assessments intended to measure the same learning targets produce the same or similar results. This involves multiple levels of documentation and evaluation starting from the consistency with which teachers in the same schools evaluate student work similarly and consistently, to the degree to which teachers in different schools and districts evaluate student performances consistently and similarly, and finally the degree to which the results from students taking one set of assessments can be compared to students taking a different set of assessments (such as comparing pilot and non-pilot districts). A determination of “comparable enough” for any type of score linking should be made based on clear documentation for how comparability is determined and that it is defensible.

Competency-Based Education

Competency-based education, also known as mastery-based, proficiency-based, or performance-based, is a school- or district- wide structure that replaces the traditional structure to create a system that is designed for students to be successful (as compared to sorted) and leads to continuous improvement. In 2011, 100 innovators in competency education came together for the first time. At that meeting, participants fine-tuned a working definition of high quality competency education, which includes five elements:

- 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.

Continuum or Learning Continuum

A continuum refers to the set of standards or learning targets along a span of education (for example, K-12 or performance levels 9-12). It is the set of expectations for what students should know and be able to do. However, it does not imply that students need to learn all of the standards in a linear way or be taught them based on their age-based grade level. The student learning trajectory and research on learning progressions should inform instruction.

Curriculum

There are many definitions of curriculum in education. Internationally, the term curriculum or curriculum frameworks refers to the high level knowledge and skills students are expected to learn and describe (i.e., competencies). The curriculum framework may include student learning objectives or learning standards.

In the United States, the term curriculum also refers to the resources that teachers use when designing instruction and assessment to support student learning, including: the course syllabi, units and lessons that teachers teach; the assignments and projects given to students; the materials (books, videos, presentations, activities) used in a course, module, or unit; and the assessments used to evaluate student learning and check for understanding.

CompetencyWorks will use the term learning experiences to refer to the design of the learning process and the accompanying set of resources to support student learning.

Culturally Responsive Teaching

First coined by Gloria Ladson-Billings in 1994, culturally responsive teaching is the pedagogical practice of recognizing, exploring, and responding to students' cultural contexts, references, and experiences. Cultural responsiveness builds upon eight principles:

- Communication of High Expectations
- Active Teaching Methods
- Practitioner as Facilitator
- Inclusion of Culturally and Linguistically Diverse Students
- Cultural Sensitivity
- Reshaping the Curriculum or Delivery of Services
- Student-Controlled Discourse
- Small Group Instruction

The [New York City Mastery Collaborative](#) highlights that a competency-based approach can promote cultural responsiveness in the following ways:

- Transparency: path to success is clear and learning outcomes are relevant to students' lives and interests. Shared criteria reduce opportunity for implicit bias.
- Facilitation shifts: refocus the roles of students and teachers to include flexible pacing, inquiry-based, collaborative approach to learning. Students drive their own learning, and teachers coach them.
- Positive learning identity: growth mindset and active learning build agency and affirm students' identities as learners (academics, race, ethnicity, gender, sexual orientation, etc.).

Deeper Learning

The term deeper learning is often used to describe highly engaging learning experiences in which students apply skills and knowledge and build higher order skills. The [Hewlett Foundation](#) defines deeper learning as six competencies²²: master core academic content; think critically and solve complex problems; work collaboratively; communicate effectively; learn how to learn; and develop academic mindsets. Deeper learning intersects with competency-based education in multiple ways, including defining the learning outcomes; emphasis on lifelong learning skills such as academic mindset and learning how to learn; and importance of applying skills and knowledge to build competencies.

Educational Equity

There are many definitions of equity in education. *CompetencyWorks* will use the definition from the National Equity Project²³:

Education equity means that each child receives what he or she needs to develop to his or her full academic and social potential. Working towards equity involves:

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

Equality

Equality is related to the principles of fairness and justice. It refers to equal treatment and, in the past, has been used to refer to equal inputs. *CompetencyWorks* uses the term equality as an aspirational goal of all students reaching their full potential.

Fixed Mindset (See Growth Mindset)

Carol Dweck's research suggests that students who have adopted a fixed mindset — the belief that they are either "smart" or "dumb" and there is no way to change this — may learn less than they could or learn at a slower rate, while also shying away from challenges (since poor performance might either confirm they can't learn, if they believe they are "dumb," or indicate that they are less intelligent than they think, if they believe they are "smart"). Dweck's findings also suggest that when students with fixed mindsets fail at something, as they inevitably will, they tend to tell themselves they can't or won't be able to do it ("I just can't learn Algebra"), or they make excuses to rationalize the failure ("I would have passed the test if I had had more time to study"). (Adapted from the [Glossary of Education Reform](#).²⁴)

The traditional system of education was developed based upon a fixed mindset and resulted in a belief that part of the K-12 system's function was to sort students.

Growth Mindset (See Fixed Mindset)

The concept of a growth mindset was developed by psychologist Carol Dweck and popularized in her book, *Mindset: The New Psychology of Success*. Students who embrace growth mindsets — the belief that they can learn more or become smarter if they work hard and persevere — may learn more, learn it more quickly, and view challenges and failures as opportunities to improve their learning and skills. Dweck's work has also shown that a "growth mindset" can be intentionally taught to students. (Adapted from the [Glossary of Education Reform](#).²⁵)

Competency education is grounded in the idea that all students can succeed with the right supports, including learning how to have a growth mindset.

Habits of Work/Habits of Mind (Referred to in this paper as Habits of Success)

Habits of work and habits of mind are directly related to the ability of students to take ownership of their learning and become self-directed learners. There are a variety of Habits of Work (specific practices or behaviors) and Habits of Mind (skills, perspectives, and orientation) that help students succeed in school or the workplace. Schools tend to focus on a few of the habits of work and mind to help students learn the skills they need to take ownership of their learning. See *Learning and Leading with Habits of Mind*.

Higher Order Skills/Deeper Learning Competencies

Higher order skills refer to skills needed to apply academic skills and knowledge to real-world problems. The term can refer to the higher levels on Bloom's or Webb's taxonomy or to a set of skills such as creativity, critical thinking, problem-solving, working collaboratively, communicating effectively, and an academic or growth mindset.

Learning Resources

The materials explored during a course, module, unit, or activity: videos, images, audio, texts, presentations, etc.

Learning Experiences

The term learning experiences is used to convey the process and activities that students engage in to learn skills and knowledge. The term refers to the package of outcomes and targets, activities, resources, assessments, and pedagogical strategies that are associated with a course, module, or unit. In the United States, this is generally referred to as curriculum. (See definition of Curriculum.)

Learning Progression

Learning progressions are research-based approaches and maps how students learn key concepts and skills as described in Achieve's briefing *The Role of Learning Progressions in Competency-Based Pathways*.

Learning Sciences Research

The learning sciences are concerned with "the interdisciplinary empirical investigation of learning as it exists in real-world settings."²⁶ Core components of learning sciences research include:

- Research on thinking: including how the mind works to process, store, retrieve, and perceive information;
- Research on learning processes: including how people use "constellations of memories, skills, perceptions, and ideas" to think and solve problems, and the role that different types of literacies play in learning; and
- Research on learning environments: including how people learn in different contexts other than a direct instruction environment with a core principle of creating learner-centered learning environments.²⁷

Lifelong Learning Skills

In the paper *Lifelong Learning Skills for College and Career Readiness: Considerations for Education Policy*,²⁸ AIR describes lifelong learning skills as providing "the foundation for learning and working. They broadly support student thinking, self-management, and social interaction, enabling the pursuit of education and career goals." *CompetencyWorks* uses the term to capture the skills that enable students to be successful in life, navigating new environments, and managing their own learning. This includes a growth mindset, habits of success, social and emotional skills, metacognitive skills, and higher order/ deeper learning competencies.

Moderation

Moderation is a process used to evaluate and improve comparability. The process involves having teachers (or others) work to develop a common understanding of varying levels of quality of student work. Moderation processes are often used as part of calibration, but moderation is a way to evaluate comparability while calibration is the adjustment based on these findings.

Personalized Approach to Learning or Personalized Learning

iNACOL defines personalized learning as “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.” Personalized learning takes into account students’ differing zones of proximal development with regards to academic and cognitive skills, as well as within the physical, emotional, metacognitive, and other domains.

Barbara Bray and Kathleen McClaskey explain in the PDI Chart that personalized learning is learner-centered, whereas the related approaches of differentiation and individualization are teacher-centered. Thus, teachers may use a personalized and differentiated approach to meet students where they are.

Social and Emotional Learning

According to CASEL,²⁹ “social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.” They focus on the development of five competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making.

Student Agency

Student agency or student ownership of their education refers to the skills and the level of autonomy that a student has to shape their learning experiences. Schools that want to develop student agency will need strategies to coach students in the lifelong learning skills (growth mindset, meta-cognition, social and emotional learning, and habits of work and learning) and to establish practices that allow students to have choice, voice, opportunity for co-design, and the ability to shape their learning trajectories.

Student Learning Trajectories

CompetencyWorks refers to trajectories as the unique personalized path each student travels to achieve learning goals on the way to graduation. Educators apply what is known about learning progressions toward helping students make progress on their trajectory.

Universal Design for Learning (UDL)

CAST³⁰ defines Universal Design for Learning as “a framework to improve and optimize teaching and learning for all people based on scientific insights into how humans learn.” UDL guides the design of instructional goals, assessments, methods, and materials that can be customized and adjusted to meet individual needs.

Zone of Proximal Development (ZPD)

A term developed by psychologist Lev Vygotsky to refer to the moment(s) during the learning process that lives between what one can do on one’s own and what one cannot do at all. It is the zone in which guidance and support is needed in order to become independently competent. A personalized approach to learning provides students with access to learning experiences attuned to students’ individual ZPD — which sometimes overlaps with others’, but frequently may not.

Appendix B: About the 2017 National Summit on K-12 Competency-Based Education

Background

In March 2011, 100 innovators in competency-based education gathered at the first Competency-Based Learning Summit, the initial step toward advancing competency-based systems. Two papers were published to share developments from this Summit:

- [Cracking the Code: Synchronizing Policy and Practice for Performance-Based Learning](#)
- [It's Not A Matter of Time: Highlights from the 2011 Competency-Based Learning Summit](#)

Six years later, competency-based education is advancing across the country as a critical component of creating an education system able to personalize education while staying true to the vision of an equitable education system. As our understanding of competency-based education has grown, so has our understanding of critical issues that must be addressed in order to ensure equity of access and outcomes as well as high-quality implementation.

In response, *CompetencyWorks* convened the second National Summit on K-12 Competency-Based Education in June 2017 to draw on the collective leadership, creativity and expertise of the field to chart our course for the next wave of innovation, implementation and expansion. As a result of the Summit, *CompetencyWorks* released [Quality and Equity by Design: Charting the Course for the Next Phase in Competency-Based Education](#), which seeks to advance K-12 competency education along four key issues: quality, equity, meeting students where they are and policy.

About the National Summit on K-12 Competency-Based Education

The National Summit on K-12 Competency-Based Education intended to move the field of competency-based education through the next generation of ideas and actionable outcomes, with a specific focus on equity and diversity. *CompetencyWorks* invited 100 innovators who collectively brought substantial diversity to this conversation. The Summit tackled 6 issues: equity, policy, quality, meeting kids where they are, identifying emerging issues and revising the working definition of competency education.

Yet, across the country there are thousands of educators who have expertise in competency education who could make valuable contributions to further develop ideas to advance the field. Thus, we designed a participatory process leading up to the Summit to engage a wider network of experts and ensure we're tapping into the collective knowledge of experts and practitioners nationwide.

Participatory TAG Process

In advance of the Summit, *CompetencyWorks* hosted four Technical Advisory Groups - one for each of the following 4 key issues: equity, quality, meeting students where they are and policy. For each TAG, *CompetencyWorks* shared a draft document and asked the TAG participants to share their insights during a one-week virtual session. Organizations, schools, professional learning communities and networks used this as an opportunity to engage in deep conversations around these issues and share their collective insights, contributing to the depth of ideas within the report. Throughout the one-week virtual session, *CompetencyWorks* and partners made real-time changes to the draft document, responding to ideas and engaging in rich discussions. With over 100 participants, this TAG process allowed for the democratization of idea development and allowed *CompetencyWorks* to capture the vast, collective insights of a wider scope of experts and leaders to advance the field. These papers were then shared publicly as draft materials and as pre-reading documents in advance of the National Summit on K-12 Competency-Based Education.

During the Summit, attendees explored these key issues using the draft reports to develop shared understanding and guide conversations. Together, these leaders and innovators collaborated on the field's challenges, networked and brainstormed solutions and best practices to advance K-12 competency-based education.

Designing for Diversity, Equity and Inclusion

CompetencyWorks took substantial measures to track the diversity of attendees — including racial and ethnic diversity, regional diversity, role diversity, experience levels and the inclusion of related fields. By intently focusing on inviting open-minded, creative problem-solvers from diverse backgrounds, *CompetencyWorks* ensured a wider range of perspectives and ideas to chart the course for competency education through the next wave of innovation. By grounding equity and diversity as an explicit design feature of the Summit, *CompetencyWorks* modeled what it means to design for equity, and created a precedent for all future meetings to intentionally focus on inclusion strategies. The Summit strengthened the diversity of leadership across the field in a significant way.

The following individuals participated in the 2017 National Summit on K-12 Competency-Based Education:

- Natalie Abel, iNACOL
- Denise Airola, Office of Innovation for Education, University of Arkansas
- Amy Allen, Parker Varney Elementary School
- Guadalupe Alvarez, Lindsay Unified School District
- Amy Anderson, Donnell-Kay Foundation
- Diego Arambula, GO Public Schools
- Laureen Avery, UCLA Center X
- Dixie Bacallao, reDesign
- Amy Barger, Fulton County Public Schools
- Susan Bell, Windsor Locks Public Schools
- Bryant Best, CCSSO
- Mandi Bozarth, West Wind Education Policy
- Kelly Brady, Idaho State Department of Education
- Yvonne Brandon, Petersburg Public Schools
- Rhonda Broussard, Beloved Community
- Trevor Brown, New Profit
- Mike Burde, Kenowa Hills School District
- Deb Bushway, Lumina and Competency-Based Education Network
- Cris Charbonneau, KnowledgeWorks
- Harvey Chism, South Bronx Community High School
- Rose Colby, Competency Education Specialist
- Brandon Corley, NYC Men Teach
- Margaret Crespo, Thompson School District
- Jenny Curtin, Barr Foundation
- C. Wesley Daniel, Ambitious Initiatives
- Jon Deane, Chan Zuckerberg Initiative
- Sunny Deye, National Conference of State Legislatures
- Elena Diaz-Bilello, Center for Assessment, Design, Research and Evaluation at the University of Colorado, Boulder
- Nicholas C. Donohue, Nellie Mae Education Foundation
- Cederick Ellis, McComb School District
- John Fischer, The Bill & Melinda Gates Foundation
- Amy Fowler, Vermont Department of Education
- Julia Freeland Fisher, Clayton Christensen Institute
- Tom Gaffey, Building 21
- Laurie Gagnon, Center for Collaborative Education
- Sajan George, Matchbook Learning
- Leah Hamilton, Barr Foundation
- LeViis Haney, Lovett Elementary School
- Caroline Hill, CityBridge Foundation
- Renee Hill, Riverside Unified School District
- Rebecca Holmes, Colorado Education Initiative
- Christina Horner, Great Schools Partnership
- Alison Hramiec, Boston Day and Evening Academy
- Amreena Hussain, Achieve
- Ashley Jones, iNACOL
- Lindsay Jones, National Center for Learning Disabilities
- Christy Kingham, Young Women's Leadership Academy
- Jeremy Kraushar, Mastery Collaborative, New York City Department of Education
- Paul Leather, Center for Innovation in Education
- Tony Lewis, Donnell-Kay Foundation
- Chris Liang-Vergara, LEAP Innovations
- Phyllis Lockett, LEAP Innovations
- Nina Lopez, Lopez Consulting
- Alex Magana, Grant-Kepner Beacon Middle School
- Scott Marion, National Center for Assessment
- Michael Martin, Montpelier School District
- Adriana Martinez, CCSSO
- Robert Marzano, Marzano Research
- Danny Medved, Denver School of Innovation and Sustainable Design
- Rebecca Midles, Mesa County Valley School
- Rosmery Milczewski, Flushing International High School
- Tiffany Miller, Thompson School District
- Tony Monfiletto, New Mexico Center for School Leadership
- Gretchen Morgan, Career Wise Colorado
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Katherine Casey is Founder and Principal of Katherine Casey Consulting, an independent organization focused on innovation, personalized and competency-based school design, and research and development. Katherine was a founding Director of the Imaginarium Innovation Lab in Denver Public Schools, supporting a portfolio of almost 30 schools across Denver and spearheading the Lab's research and development activity. Katherine was a founding design team member at the Denver School of Innovation and Sustainable Design, Denver's first competency-based high school. Prior to her time in Denver Katherine worked in leadership development leadership development, philanthropy, public affairs, and higher education. She received her BA from Stanford University and her Doctorate in Education Leadership from Harvard University. Her dissertation, titled "Innovation and Inclusion by Design; Re-imagining Learning, Remembering Brown," explored the intersection of school design and integration in Denver.

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