

Making Learning Personal for All

Policies and Practices That Meet Learners Where They Are

Barbara Pape and Tom Vander Ark



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This is Part 4 of the **Making Learning Personal for All** series:

[Part 1: The Growing Diversity in Today’s Classroom](#)

[Part 2: Research and the Promise of Personalized Learning](#)

[Part 3: Supporting Research-Based Personalization for Reading Success](#)

Executive Summary

The convergence of growing classroom diversity, learning sciences research, sophistication of technology, and 21st-century job requirements in a global market could put America's education system on track for personalizing the learning experience. The goal is for each student to master content and skills to help guarantee their success in college and career.

Yet, despite often heroic efforts by individual teachers, the promise of reaching all learners is a failing proposition in far too many schools. One reason is the inattention to the growth of learner variability, which makes "teaching to the middle" inadequate at best.

At the same time, workforce requirements have changed significantly. Mastery of the Three Rs is only the foundation in the 21st century, as employers now seek people who can solve complex problems, think critically and creatively, coordinate with others, and manage people.

We need to re-think our education system to address learner variability and meet our

promise to guide each learner to become productive and fulfilled citizens. Burgeoning learning sciences research is providing a road map for ways to engage students, help them learn, and help them learn how to learn. Social and emotional learning is taking hold in many schools to help students understand themselves and others in order to, among other things, better collaborate and coordinate with classmates. And, mature and ever-advancing technology can be harnessed as a tool to improve learning in school and beyond. This intersection of learner diversity, needs of the current and future job market, desire for vastly improved equity, learning sciences research, and technology compels a more personalized approach to learning.

What does it mean to personalize learning?

While no consensus has formed around a definition for personalized learning, there are several essential characteristics:

1. Learner variability defines personalized learning. Personalized learning is not an isolation chamber of students in cubicles behind computers. The culture of personalization is built on embracing all comers and providing paths for success for each student, with and without technology.
2. Learning is social and emotional. These are essential ingredients for personalizing learning. The social, emotional, and cognitive competencies, if effectively implemented and developed throughout one's life, are key to success in school, at work, and in the community.
3. Learning must be organized with the learner at the center.
4. Learning objectives, approaches, content, pace, and tools are tailored and optimized for each learner.
5. Learners take ownership of their learning, having more choice and a greater voice in what, how, when, and where they learn.
6. High expectations are in place for each student. Personalized learning has the potential to help advance equity in schools, as long as expectations are held high for all.

Policy Actions and Investments to Personalize Learning

Transformation of our current school model requires a paradigm shift in how educators and policymakers think of school. Yet local, state, and national leaders can begin to promote personalized learning to address learner variability in a number of ways.

For example, districts can support personalized learning plans, provide equitable access to technology, develop purpose-driven and personalized professional learning for teachers, organize work in phases, and leverage networks.

Districts and teachers also can reach out to parents and the community to explain why supporting personalized learning to address learner variability is critical and how teachers are creating experiences that consider development of academic, social-emotional, and other skills for all students to succeed in college and the workplace. Teachers need their own personalized path to learn, as well as the flexibility, encouragement, and time for professional learning.

States can encourage personalizing learning for each student by promoting competency-based progressions, adopting broader aims, supporting personalized learning plans, and investing in innovation. For example, competency-based education, as a core strategy for personalized learning, holds the promise of raising achievement for all, as long as expectations are held high for each student.

At the federal level, the Elementary and Secondary Education Act (ESEA), while worrisome for developing and nurturing equity in the schools, did create new opportunities for personalized learning in three areas:

- Increased focus on growth and improvement rather than just grade-level proficiency;

- Use of multiple measures and less reliance solely on an end-of-year test; and
- New opportunities to build capacity for next-generation educators.

National organizations also can address data interoperability challenges and frustrations faced by schools and districts. National organizations such as Project Unicorn are working with school districts to create seamless, secure, and controlled exchanges of data among applications.

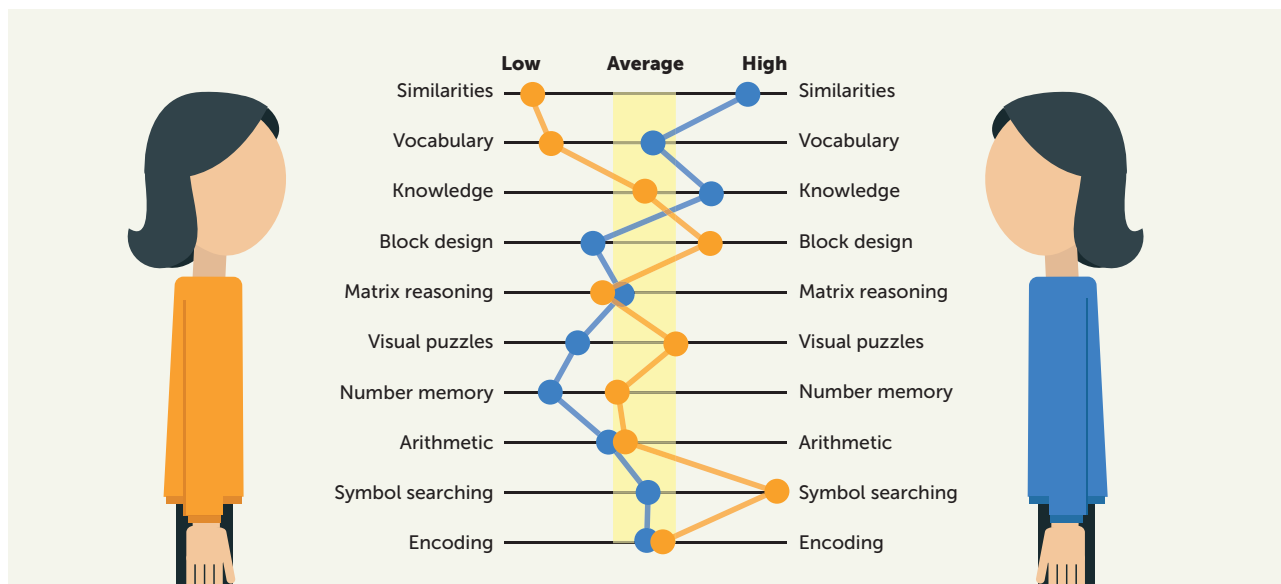
Efforts to personalize learning must take in the whole child – the academic, social, and emotional needs of the learner. It must address learner variability, recognizing each child learns in a way unique to them and demonstrates distinctive strengths and challenges. To be effective, personalized learning environments must hold high expectations for each learner.

Digital Promise Global, through its Learner Positioning Systems (LPS) initiative, is linking research to practice to enhance opportunities to personalize learning to address learner variability. LPS facilitates the connection among researchers, edtech product developers, teachers, and ultimately learners.

When done right, supported by research on how people learn, with high expectations for all learners, and a consideration for whole-child development, personalized learning welcomes students as partners in their education and turns schools into places where ALL are inspired to learn and have the best chances for success. ■

Part 1: The Promise of Reaching All Learners

Learner diversity is the new norm in classrooms nationwide. Students in today's schools are more diverse than ever linguistically, economically, and culturally (Growing Diversity, Digital Promise). About [13 percent of elementary and secondary students](#) receive special education services. One in 16 public school students have [Individual Education Plans \(IEPs\)](#) for a specific learning disability while one in 50 public school learners receive accommodations through the [504 Education Plan](#). Ten percent are [English language learners \(ELLs\)](#). Just over 20 percent of learners say [they have been bullied](#), bringing to their classrooms fears and frustration. Variabilities among learners in terms of pace, background knowledge, ability to focus in a school setting, homelife conditions, socio-economic status, and more range widely across our contemporary cohort of American students. These are the learners who struggle to learn in restrictive, traditional classroom environments.



Coupled with expanded diversity in classrooms is the fact that our current K-12 education system fails to adequately prepare a large proportion of its students for college, career training, and, eventually, jobs. The changing nature of the workplace demands that public education support many more students over a higher bar and that more students will require post-secondary education to be employable. The raising of the employment standard presents challenges. For example, one indicator of this problem is the high percentage of students in some two- and four-year institutions who need to enroll in remedial classes – sometimes as [high as 60 percent](#).

Demands from the job market also are changing. We are no longer, and have not been for some time, an industrial society in need of human cogs on an assembly line. [According to the World Economic Forum](#), the top five most valued skills for workers in 2020 are: 1) complex problem solving; 2) critical thinking; 3) creativity; 4) people management; and 5) coordinating with others.

This is a far cry from simply needing a grasp of reading, writing, and arithmetic to be marketable to employers. While mastery of the three Rs remains critical, it is merely the launching point and no longer the end goal.

We need to re-think the education system in order to address the diversity of students, elevate equity concerns, and consider job requirements for employees in an increasingly automated and technological society. Clearly, the age-old “teach to the middle” is not enough today, and probably never was.

In his illuminating book, *The End of Average: How to Succeed in a World that Values Sameness*, Todd Rose reveals the false argument that there is an “average” learner. He introduces the concept of “jagged profiles,” which recognize that each person/learner has distinctly different strengths and areas of growth or variability. His work forms a

Learning Differences

An educator in the 1970s or 1980s with a classroom of 24 students might have had five or six students (20 to 34 percent) requiring specialized interventions. In a classroom of 24 students today, it is common that between 10 and 12 students (40 to 50 percent) are living in poverty, have a disability or learning difference, are English language learners, are gifted or talented, are experiencing challenges at home or in their communities that result in trauma, or some combination of the above—each of whom research shows needs personalized approaches to learning to reach their potential. (From [The Growing Diversity in Today’s Classrooms](#), first in Digital Promise’s Making Learning Personal For All series)

foundation for the need to personalize the education experience for all students to meet the demands of today’s global economy and make good on the promise of fulfilling their potential and the pursuit of happiness.

How can we offer top-notch opportunities that personalize the learning experience to prepare each student for a world that is increasingly global and information based? How can we ensure equity and excellence in our education programs? How can we prepare students to think critically, persevere and understand how they learn so they can take ownership of their learning throughout their lifetime? How can they develop skills to collaborate with others?

Burgeoning learning sciences research is providing a road map for ways to engage students and help them learn, and help them learn how to learn. Additionally, social

and emotional learning is taking hold in many schools to help students understand themselves and others. Mature and ever-advancing technology provides new ways to improve learning in school and beyond. This intersection of learner diversity, needs of the current and future job market, desire for vastly improved equity, learning sciences, and technology compels a more personalized approach to learning.

In an environment that embraces the individual learner, teachers teach learners and not a class of students. They ask, what motivates that person? Does this student need more time to attain competency? What's the best

support for this particular student to grasp this particular concept? What are this student's interests? This thinking stands in stark contrast to the still-present notion of forcing students to fit into and move through school in an age-fixed cohort, to box them in with certain time limits to learn or to demonstrate their learning, or to direct teaching to the non-existent "average" student. Personalizing learning provides avenues for teachers to productively engage with the wide range of learners present in every classroom throughout the country. **And, as we advance our understanding of learners, learning technology available today makes reaching all students much more feasible. ■**

Learner Variability Defines Personalized Learning

A personalized learning environment inherently provides variety and choice to students. It inspires a culture that relies on continuous improvement, rather than a dead end of academic winners and losers.

Personalized learning is not an isolation chamber of students in cubicles behind computers. While technology is a powerful tool for teachers to use to personalize learning, the culture of personalization is built on embracing all comers and providing paths for success for each student. It rests on emerging principles of social, emotional, and academic learning. It is not hung up on seat time, but on a love of learning and continuously improving performance. It develops self-awareness in each student on how they learn and what tools they need to succeed.

Learning is Social and Emotional

So says the [Aspen Institute's National Commission on Social, Emotional, and Academic Development](#), spearheaded by CASEL Chair Timothy Shriver and Linda Darling-Hammond, CEO of the Learning Policy Institute and Professor of Education Emeritus at Stanford University. Their latest report, *The Evidence Base for How We Learn: Supporting Students' Social, Emotional, and Academic Development*, is a consensus of evidence statements from distinguished scientists that provide the research backbone for integrating social, emotional, and academic learning. And, it is an essential ingredient for personalizing learning. The social, emotional, and cognitive competencies, if effectively implemented and developed throughout one's life, are key to success in school, at work, and in the community. Examples of schools and classrooms that are "putting it all together" [can be found here](#).

While a formal definition of personalized learning, agreed upon by all stakeholders, has yet to emerge, it may be unnecessary as it is evident that personalized learning is centered on the student and depends on masterful teachers who harness appropriate tools to bring a learner-centered approach to the learning environment. In the second white paper in our [Making Learning Personal for All](#) series, "Research and the Promise of Personalized Learning," keeping sight of "why personalize" was emphasized:

...Personalized learning is a path to actively engage, motivate, and inspire all learners to embrace difference, overcome challenges, and demonstrate mastery.

Key principles of personalizing learning that have emerged from multiple definitions include:

1. learning must be organized with the learner at the center;
2. learning objectives, approaches, content, pace, and tools are tailored and optimized for each learner; and
3. learners take ownership of their learning, having more choice and a greater voice in what, how, when, and where they learn. ■

Striving for Equity

Personalized learning has the potential to help advance equity in schools, as long as expectations are held high for all.

Students most harmed in a traditional system of learning are the most vulnerable, including: students of color; those who would be first-generation college; those from economically disadvantaged families;

students with learning differences that are not compatible with traditional schools and one-size-fits-all methods of teaching; and students whose first language is not English.

In "[A Personalized Approach to Equity](#)," an article in the March 2017 ASCD magazine, Becky Wilusz and Ken Templeton at [Great Schools Partnership](#) report on five elements of personalized learning that can lead to more equitable outcomes for students:

1. Learning focuses on common standards that apply to all students
2. Students have regular opportunities to engage in higher-order thinking and transfer their learning
3. Feedback and reflection are routinely incorporated into learning experiences
4. A system of varied supports and extensions exist to help all students succeed
5. Students have choice in designing the content, pathways, and products of learning



Traditionally, schools have used tracking (e.g., reading groups in primary, honors courses in high school) in an attempt to cope with groupings of learning variability, but these became permanent tracks with much different expectations and outcomes for each group. The goal of personalized learning is to optimize learning for all students with clearly stated, high expectations for everyone and with equitable opportunities in the line of sight for all. To avoid permanent low tracks, personalized learning schools frequently remix performance groups and use a combination of academically homogeneous with heterogeneous groupings including project teams and advisory groups.

Personalizing learning also means paying attention not only to academics, but to the social-emotional, behavioral, and collaborative skills required to progress and succeed at college and career. Knowing the precise supports each learner needs, providing these supports and offering opportunities to develop student agency, develops within each learner the ability to better understand what they need to learn and facilitates achieving higher standards and personal goals.

Through a personalized approach to learning, a learner constantly moves forward based on performance and is not held back by being locked into a group and a certain period of time to master content. For students who move swiftly through material, personalized learning means they do not have to unnecessarily practice what they already know, but can be inspired by fresh material and new ways to apply their knowledge.

When personalized learning encourages students to develop self-advocacy, it takes great strides to improve educational opportunities for students, especially those with learning differences, according to the National Center for Learning Disabilities (NCLD). Personalized learning environments

David Rose, lecturer at Harvard and CEO of CAST, uses an [analogy of an orchestra](#) to explain the importance of understanding each learner and helping that person meet his or her potential.

He says, “Often schools act as if what we really want are clarinet players and everybody else is a failed clarinet player. In fact, what the culture needs and what orchestras need is great diversity of the kind of instruments you can play,”

that incorporate frameworks like [Universal Design for Learning \(UDL\)](#) provide each classroom with texts that are digital and flexible for students who rely on them to meet high expectations. UDL is a set of principles for curriculum development that dismisses the mythological average learner.

According to the [National Center for the Universal Design for Learning](#), UDL addresses “learner variability by offering flexible goals, methods, materials, and assessments that empower teachers to meet these varied needs.” The framework spurs the creation of flexible design of curricula from the start to avoid time-consuming changes down the road.

NCLD cautions, however, that all too often changes in educational practice are conceived, designed, and implemented with some version of an “average learner” in mind. Then it is retrofitted with little or no evidence to support a positive impact for students who need more targeted, individualized, or intensive instruction and support. **In other words, the starting line should be on learner variability, an acknowledgement that no learner is the same. ■**

NCLD's Action Steps for Personalized Learning

1. Establish an inclusive vision for personalized learning efforts from the beginning of design and planning
2. Ensure sufficient resources to provide accommodations and supports to help students with disabilities fully participate in personalized learning efforts
3. Provide professional learning opportunities for general and special educators to implement personalized learning inclusively.
4. Use comprehensive accountability and support systems to ensure access to and rigor of quality learning experiences for all students.
5. Invest in pilot programs that test strategies around personalized learning and ensure that pilot programs have a means to learn and disseminate learning around implementation opportunities and challenges for students with disabilities.
6. Communicate with and engage families from program initiation to implementation of personalized learning efforts.

Dimensions to Reach All Learners

Four dimensions that address learner variability are discussed below:



Level

The most basic objective of personalized learning is to adjust the learning to the most productive level. As learned from game design, calibration (or [dynamic difficulty adjustment](#)) avoids boredom and frustration. Good teachers have long differentiated assignments for students by adjusting the degree of difficulty of tasks or modifying reading selections. Access to appropriate and research-based technology helps teachers differentiate learning more systematically and for each student.

Blended learning, a mix of face-to-face and online learning, enables personalized learning particularly when one mode informs the other. Adaptive learning systems (e.g., [DreamBox](#), [i-Ready](#), [Istation](#), [A2I](#)) [calibrate work automatically](#), keeping tasks in the zone of proximal development, which is the difference between what a learner can do without help and what he or she cannot do. Feedback from adaptive assessments helps teachers quickly pinpoint learning level and adjust units of learning. ■

Pacing

Rather than advance students at the same pace regardless of whether or not they have mastered important concepts, students in personalized environments progress at their own pace as they demonstrate mastery. Often called competency-based education (or proficiency-, performance- or mastery-based learning), this form of instruction calls for frequent demonstrations of learning.

Competency-based learning at scale, and the shift from time to learning as the primary measure, challenges all of the organizing principles of traditional grade-level education including the basic architecture and organization of schools (more on that in the policy section). ■

The [National Governors Association](#) suggests that competency-based education, in order to improve outcomes, must focus on:

1. **Mastery:** students advance to the next level, course, or grade based on demonstration of skills and content knowledge as outlined in clear, measurable, and rigorous learning objectives;
2. **Pace:** students progress at different rates in different areas rather than on a class-wide schedule; Feedback and reflection are routinely incorporated into learning experiences
3. **Instruction:** students receive customized instruction to match their individual learning needs in each subject, thus those who struggle in any area will be able to reach proficiency before being offered more challenging material and those who excel are constantly challenged;
4. **Assessment:** meaningful, high-quality assessments allow students to demonstrate their mastery of skills and concepts when they have mastered them rather than at a set time in the school year.

Voice and Choice

Extended experiences that challenge students, including through Challenge Based Learning, project-based learning, design thinking, maker learning, internships, service learning and more, provide the opportunity for students to select or modify topics, approaches, products, and presentations of their learning.

For example, [Challenge Based Learning](#) (CBL) connects student projects to real-world challenges. [The CBL Framework](#) goes

beyond voice and choice by fueling collaboration between students, teachers, families, and community members to identify big ideas, ask thoughtful questions, and also identify, investigate, and solve challenges. This approach helps students gain deep subject area knowledge and develop the skills necessary to thrive in an ever-changing world.

[Buck Institute for Education \(BIE\)](#) defines project-based learning as “a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an engaging and complex question, problem or challenge.”

The CBL Framework is divided into three interconnected phases – Engage, Investigate, and Act – and includes the following key elements:

- **Everyone is a learner.** Ubiquitous access to information and technology provides the opportunity to break down the traditional hierarchical structure of schools and allows all participants to both teach and learn.
- **Moving beyond the four walls of the classroom.** Involving all of the community members in the process expands resources, creates opportunities for authentic learning and moves the responsibility of education to the larger community.
- **Learner inspired, directed, and owned.** Meaningful connections are made between content and the lives of learners.
- **Challenges are powerful.** Situations or activities create a sense of urgency, spur action and lead people to achieve “above and beyond” expectations.
- **Content and skills.** Authentic learning experiences foster deep content knowledge and help Learners organically develop a wide range of skills.
- **Space and freedom to fail.** A safe space is provided for all learners to think creatively, try new ideas, experiment, fail, receive feedback and try again. This iterative process is built into all of the phases of the framework
- **Slowing for critical and creative thinking.** To ensure full participation and to provide opportunities for deep thinking, the learning process needs to be intentionally slowed down at times.
- **Authentic and powerful use of technology.** Technology is used to research, communicate, organize, create, evaluate, document and persuade.
- **Focus on process and product.** The process of getting to the solution is valued as much as the solution.
- **Documentation and storytelling.** During each step of the challenge process, the learners document and publish using text, video, audio and pictures.
- **Reflection.** Learners continuously reflect on the content, the process, and their learning. ■

Supports

Tailoring college and career planning, academic, and youth and family supports helps all learners succeed. At the secondary level, an advisory system that provides a sustained adult relationship is key to monitoring progress and aligning supports, according to [a report from Getting Smart](#).

One example of the benefits of advisory services and academic supports is the College Readiness Initiative launched in 2006 by [College Spark Washington](#). Six-year grants

were provided to 39 low-income schools to boost college and career preparation. These schools implemented a guidance program or AVID with an emphasis on evidence-based practices, vertical teaming structures for middle and high schools to establish transition plans and early warning systems; and strong guidance counseling leadership integrated with the school’s counseling program. Outcomes included improved school culture, graduation, and college attendance rates. ■

Part 2: Policy Actions and Investments to Personalize Learning

Today's social challenges and economic opportunities demand more than basic skills. Obtaining or creating family wage employment requires young people to organize themselves and their work and know how to collaborate in teams, how to make decisions and solve problems and, perhaps most important, how to learn. "We are all entrepreneurs," said microfinance pioneer [Muhammad Yunus](#).

Transformation of our current school model requires a paradigm shift in how educators and policymakers think of school. But when teachers innovate and leaders lead, they frequently run into a tangle of rules and regulations that impede student learning. Students are grouped in age-bound classes. They are given the same amount of material to learn in the same amount of time, often in the same way. Accountability is based on seat time and sometimes a single test. This,

despite vast differences in student background knowledge which may leave gaps that remain open because there is no time to go back to catch up. In this scenario, students are constantly compared to each other rather than the outcomes desired, turning school into a competition and sorting exercise.

Local, state, and national leaders can promote personalized learning in many ways. ■

School District Strategy and Policy

While federal and state policies are door openers, school districts' ability to transform to personalized approaches should not be underestimated.

There is much a district can do to support teachers in their quest to personalize classrooms that do not depend on federal and state policies. They can, for example, facilitate a shared vision about student learning outcomes, support personalized learning plans, provide equitable access to technology, develop purpose-driven and personalized professional learning for teachers, organize work in phases, and leverage networks.

Districts and teachers also can reach out to parents and the community to explain why supporting learner variability is critical and how teachers are addressing it through personalized experiences to meet the academic, social-emotional, and other skills required for all students to succeed in college and the workplace. They also can encourage the belief that learning occurs outside of the classroom as well, and provide ideas on how to make that happen. ■

Shared Vision and Learner Outcomes

The Digital Promise [League of Innovative Schools](#), a network of 93 school districts in 33 states, has seen significant efforts to advance personalized learning. Some League members facilitate community agreements including pictures of the desired future state, graduate profiles, and strategic plans. **For example:**

- The most recent strategic plan for the [Highline School District](#), located south of Seattle, pledges to personalize the learning experience by promising that every student is known by name, strength, and need, and graduates are ready for college, career and citizenship.
- In their strategic plan, [Charlotte-Mecklenburg Schools](#), like so many districts, promises to meet the needs of each learner and recognizes that “every child needs an outstanding teacher who can personalize the learning experience.” They offer six goals that support doing so, including the creation of a personalized 21st-century learning environment, and inspiring and nurturing “learning, creativity, innovation, and entrepreneurship through technology and strategic school redesign.”
- Community conversations led to a new graduate profile in [El Paso Independent School District](#). The profile includes: Critical, Knowledgeable and Creative Thinkers; Informed Problem Solvers; Bilingual Communicators; Responsible Leaders and Productive Citizens; and Socially and Emotionally Intelligent Individuals.
- [Dysart Unified School District](#) in Phoenix offers a large selections of academic pathways allowing students a choice of learning experiences. ■

Personalized Learning Plans

One way to ensure each student has their own learning path to gain mastery of content and skills is to create a Personalized Learning Plan (PLP) for each student. PLPs, which can be created at a district level, include a student’s strengths, challenges, motivations, goals, behavioral information, social-emotional competencies and challenges, achievement data, and progress toward meeting standards. Teachers, learners, and their parents must have regular and easy access to PLPs in order to be on top of where a student is positioned and where they need to go to meet outcomes.

According to Michael Horn, co-founder and distinguished fellow at the Christensen Institute, it is essential that PLPs be and remain dynamic in order to be effective. Horn suggests that whatever type of

document is used, it must regularly map where learners are on achieving standards and other academic, personal, and social-emotional goals and include how they learn best. “I would argue that you daily or at least weekly map so learners constantly know how they are progressing,” he said. Horn points to [Summit Public Schools](#), where students see progress on their personal dashboard and frequently visit with mentors to assess where they are and where they need to go to meet their personal goals.

Personal learning plans enhance student agency. Learners set goals and know where they are at all times. They also receive frequent feedback from teachers, peers, and learning applications. With PLPs, students own their learning. ■

However, PLPs must not supplant Individual Education Plans (IEPs). IEPs are legal documents and as the [Vermont Agency of Education](#) explains:

“PLPs articulate the learning experiences that ultimately shape a student’s path to graduation, in accordance with locally developed graduation requirements. IEPs outline the specialized instruction and services needed to help a student with a disability access and progress in the general education curriculum.” - Vermont Agency of Education



In short, PLPs and IEPs serve unique purposes and both are necessary to allow all students to meet high expectations. ■

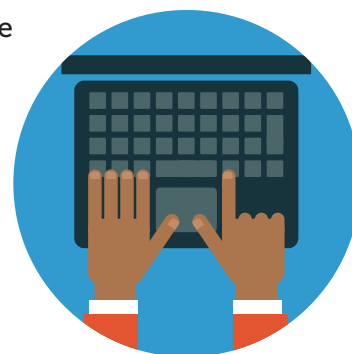
Access to Technology

Meeting each learner where they are and helping them advance can be greatly aided by technology tools and resources that support not only each student’s skill development, but also their passions and interests. To be clear, adding technology tools is certainly not a drive to seclude students within their own tech experience. District and network leaders are responsible for creating learning opportunities that maximize successful outcomes for each student, paying attention to their social and emotional development. They are also responsible for ensuring equitable technology access in and out of school and for defining the role technology will play within learning environments.

Through rich content and access to the Internet, students can pursue paths of interest and inquiry as well as collaborate with peers both in the classroom and across disparate

geographies. Adaptive software also can be designed to adjust to a student’s level and pace and can offer differentiated supports and problem sets. Critical data and evidence

can help teachers understand students more deeply, determine their next play, and more efficiently group students while supporting their individual learning needs. Devices can provide access to professional tools for writing, composing, animating, and more. And, they can provide accessibility supports such as text to speech, speech to text, visual cues, supports for mobility needs and translation, all in service of the full range of learner variability. ■



Working in Phases

Personalized learning is complex, combining multiple strategies such as blended learning, project-based learning, and competency-based learning. Most personalized learning models require new teaching practices, new tools, and new relationships – a lot to take on all at once. Thoughtful districts and networks look for ways to phase in the work over time.

One popular place to start is with finding and developing teacher leadership. [Fulton County Schools](#) in metro Atlanta started by identifying and supporting innovative teachers, referred to as the [Vanguard Team](#). Now with four teachers per school, Vanguard teams receive tools and professional learning opportunities focused on transformational,

personalized learning experiences for students. Fulton's plan for [personalized learning](#) started with an [assessment of school readiness](#), including teaching practices, willingness to collaborate, space use, and learning plans. Results determined when and how the school was provided with budget and resources to make the digital conversion to better support personalization. The Vanguard Team allows schools to make more informed choices.

In another example, [Mesa County Valley Schools](#) in western Colorado launched its conversion to personalized and competency-based learning with a cohort of seven demonstration schools and invited the other 37 schools to grow into the new framework.

Supporting Teachers

Teachers need time within the school day and week to make progress on individual, team, and system goals. They need access to learning sciences research and the opportunity to share their challenges, strategies, and lessons learned with their peers. They require evidence-based tools for determining which approach and strategy works for which students and in what contexts. They need an information system that supports the selection of the most appropriate technology products to use, including which tools are research based.

Teachers should learn with the same blended, personalized, and competency-based opportunities as students. Individual teacher learning plans should reflect the above mentioned personal, team, school, and system goals. [Micro-credentials](#) are a strategy that allows teachers to make choices about what to learn and how to demonstrate their progress.

Rather than phase in change school by school, some districts work in grade spans, implementing, for example, personalization tools and strategies in middle grades and working up and down in succeeding years from there. Both Houston and El Paso launched high school efforts first and took advantage of open content and the opportunity to expand student options.

Connecting teacher and school readiness with waves of technology deployment is challenging for all school districts. The key to success is starting where impact is likely to be rapid and visible to the rest of the system and to encourage and support teacher leadership. ■

Teachers also need support to help students develop social and emotional skills and weave those into academic learning. To assist the drive to incorporate social and emotional learning with academics, the Aspen Institute [National Commission on Social, Emotional, and Academic Development](#) released a [new report](#) that provides a call to integrate social and emotional development with academic instruction based on research that shows it matters.

The bottom line is that teachers need the flexibility, encouragement, and time for professional learning so they can eventually implement personalized learning in *their* classrooms with *their* students. ■



Leveraging Networks

Because personalized learning involves new structures, tools, and practices, it can be helpful to organize and support the work within networks. Teachers in and across schools can learn together in networked improvement communities. If a district is phasing in personalized learning, schools can work together in cohorts.

School design networks like [NAF](#) and [EL Education](#) offer a learning model, curriculum, and support services. Some, like [New Tech Network](#), provide a learning platform. Adopting one of these networks reduces the number of decisions a school community is required to make and can increase the fidelity of implementation.

[Denver Public Schools](#)

incubated and authorized networks of charter schools to increase the number of high quality personalized learning schools. They also created a category of semi-autonomous Innovation Schools, some of which are organized in networks to improve and scale.



District leaders can develop and share ways to support personalized learning in networks such as the [League of Innovative Schools](#) and [EdLeader21](#). ■

State Policy and Investment

In “[Meeting The Every Student Succeeds Act’s Promise: State Policy to Support Personalized Learning](#),” iNACOL argues that across the country, state leaders are shifting from a focus on compliance toward continuous improvement and systemic change, in order to support local efforts to redesign K-12 education around student-centered learning. Why?

Competency-based education, as a core strategy for personalized learning, holds the promise of raising achievement for all, if expectations are held high. The promise of personalized learning can empower teachers and has the potential to improve student outcomes by designing learning environments around how students learn best. In this way, each student’s needs can be met and the stage

is set to ensure mastery of critical knowledge, skills, and dispositions needed for success.

There are a number of ways states can encourage and support personalized learning, including adopting broader aims, promoting personalized learning plans and competency-based progressions, and investing in innovation. ■

Broader Definition of Success

The federal [Every Student Succeeds Act](#) (ESSA) of 2015 is, as iNACOL stated, “a historic opportunity for the United States to begin to transform K-12 education toward personalized, student-centered learning.” ESSA gives states some flexibility in how they define student success, their assessments and accountability systems, the use of federal funding, and educator preparation and licensure.

Virginia’s Profile of a Graduate

- Achieve and apply appropriate academic and technical knowledge (content knowledge)
- Demonstrate productive workplace skills, qualities, and behaviors (workplace skills)
- Build connections and value interactions with others as a responsible and responsive citizen (community engagement and civic responsibility)
- Align knowledge, skills and personal interests with career opportunities (career exploration)



States can use multiple measures of academic achievement, graduation, and performance of individual student subgroups, as well as measures of school quality to identify schools for improvement. States can redesign accountability around a broader definition of student success, keeping in mind the importance of self-management, working collaboratively, critical thinking, and learning how to learn – all top factors for success in college and career.

There is interest in adding social and emotional learning (including self-management, self- and social-awareness, relationship skills, and decision making) to state outcome frameworks, but experts recommend focusing on classroom practice and feedback before incorporating measures into state accountability systems, [reports CASEL](#). ■

Personalized Learning Plans

Besides establishing multiple measure accountability systems, which are more conducive to personalized learning, leading states are advancing Personal Learning Plans (PLPs). Vermont requires each student in grades 7-12 to have a PLP. These documents identify a student’s abilities, aptitudes, and dispositions that guide

decision-making on course offerings and other education experiences. Vermont’s Education Quality Standards requires that the PLPs are incorporated into the instructional process and that students receive the academic and social-emotional supports to help attain the state standards. ■

Competency-based Policies

Requiring a high level of demonstrated mastery before progressing to the next level reduces learning gaps and improves the likelihood of graduating from high school ready for postsecondary learning and careers. Competency-based policies, including graduation requirements (see Virginia’s Profile of a Graduate, sidebar on page 18), recognize that the time and supports for students to demonstrate mastery will vary. For example, in 2016, Florida established the [Competency-based Education Pilot Program](#), designed to provide an educational environment that allows students to advance to higher levels of learning upon the mastery of concepts and skills through statutory exemptions related to student progression and the awarding of credits.

Five years ago, only half the states recognized competency-based learning models. Sunny Deye, Program Director at the National Conference of State Legislatures, said that while CBE has been around for a while, it has been heating up in recent years and now nearly every state allows competency-based learning through [state legislation or state board action](#), though scope varies for state CBE plans.

In “[The Path to Personalized Learning](#),” ExcelinEd profiles three states, Idaho, Utah, and Florida, that are heavily involved in creating competency-based education. Although states will take different paths to competency-based and personalized learning, several themes emerged from the experience of these states: 1) an emphasis on intentional, step-wise implementation; 2) an importance of professional learning, both in providing time and resources for teachers, but also in connecting with other personal learning networks to share thoughts, ideas, and plans; and 3) an understanding that while there are few barriers at the moment, some may arise in the future as programs mature. Because of this, current state policy must not center on short-term workarounds, but rather they should enact the policy changes that address issues in the long-run.

Digital Promise and Education Elements created a [CBE Toolkit](#) designed to share a broad range of experiences from members of the League of Innovative Schools in developing CBE. ■

Credit Flexibility

[Ohio’s Credit Flexibility plan](#) was adopted by the State Board of Education in 2009 and allows students to earn high school credit by demonstrating subject area competency, completing classroom instruction, or a combination of the two. Subject-area competency can be demonstrated via participation in a range of experiences, such as internships, community service, online learning, educational travel, and independent study. According to the Ohio Department of Education, credit flexibility puts students in the driver’s seat of their learning.



Investing in Innovation

[Colorado](#) and [Kentucky](#) created Innovation Zones that offer schools the freedom to develop personalized learning models by granting waivers from regulations that inhibit innovation. In Kentucky, for example, seat-time policies, average daily attendance, and regulations that disallowed student participation in internships were waived.

Another example of state investment in innovation is Ohio's support of innovations in personalized learning through a \$250 million [Straight A Fund](#). It resulted in a regional middle grade personalized learning network supported by [Mentor Public Schools](#). [RAMTEC](#), an innovative robotics credentialing program at [Tri-Rivers Career Center](#), received \$22 million in grants to expand to [22 additional career centers statewide](#). ■

Regional Approach

Some parents wonder if aspects of personalized learning such as standards-based grading will negatively impact their child's ability to gain admission to a selective college. The [Great Schools Partnership](#) is addressing this challenge in New England by encouraging states to adopt proficiency-based diplomas. They are also building a coalition of all of the public and many of the private universities willing to accept them. The state mandate and assurance of college acceptance reduced parent and teacher concerns across New England.

David Ruff, executive director of the Great Schools Partnership, found success by focusing on a few high-leverage policies starting with graduation requirements.

Examples of progress include:

- In 2011, the New Hampshire Board of Education began requiring high schools to assess students based on their [mastery of course-level competencies](#), rather than time spent in class.

New Hampshire: Story of Transformation

In 1997, the Granite State Department of Education shifted from name and blame to emphasizing a culture of improvement based on support and incentives. They also sought a balance between state and local control through collaborative processes. In 2005, the state redefined the Carnegie unit credit based on seat time and replaced it with a competency-based credit. In 2013, they revamped their [Minimum Standards for School Approval](#) so all K-12 schools would be designed for "students to reach proficiency rather than allowing them to be passed on without addressing their gaps and weaknesses." Along the way, the state created an integrated system by co-designing competencies, extending learning opportunities, establishing a [Virtual Learning Academy Charter School](#), providing a system to provide educator support and evaluation, and piloting a new accountability system.



- Proficiency-based diplomas in Vermont require students to demonstrate mastery of academic content before graduating and support the adoption of personalized competency-based approaches to learning. Mastery replaces seat-time requirements.
- In Connecticut, students can earn credit by hours, early college courses, online

courses, or demonstration of achievement of standards.

Sustained focus matters but Ruff is quick to note that success at scale across a region comes when efforts are nimble enough to take advantage of opportunities as they arise. He suggests that policies should set up the guardrails and grant the freedom to create personalized learning environments rather than demand compliance or create programs where only a select few can participate. ■

Federal-National Policy: Keep It Flexible, Invest in What’s Possible

Personalized learning benefits from stronger standards put in place recently in many states. And yet, the shift to competency-based progressions have been dampened by big end-of-year tests and the high stakes that go with them. Standards-based reforms inadvertently locked in the old model of age cohorts and time-based credits.



When ESSA replaced NCLB it marked the end of a period of big federal involvement and spending in education. The shift of control back to the states worries equity advocates and signals why policy and practice must stress high expectations for all students. **But the shift also creates new opportunities for personalized learning, in three areas:**

- Increased focus on growth and improvement rather than just grade level proficiency;
- Use of multiple measures and less reliance solely on an end of year test; and

- New opportunities to build capacity for next generation educators.

ESSA provides states with the flexibility to develop multiple measure accountability systems, as long as they include long-term goals, academic indicators, and measures of school quality and student success. This means states can redesign accountability around a broader definition of student success, keeping in mind the importance of critical thinking, working collaboratively, learning how to learn – all top factors for success in college and career. (Some of these measures are, as discussed, still in the early stage of development.)

Since ESSA eliminated the “highly qualified teacher” requirement, states now have the responsibility to uphold the promise of ensuring that students are taught by highly qualified teachers. They also have the opportunity to add new descriptions of

educator quality through certification and licensing requirements that align with the vision of personalized learning. States can look to [micro-credentials](#) as a way to promote, beyond certification, more individualized learning and demonstrations for teachers.

[KnowledgeWorks is reviewing state ESSA plans](#) that demonstrate a shift to a personalized approach to education. They have categorized state plans that pave the way for personalization into these categories:



In most states, the new-found flexibility makes it easier to initiate innovations to embrace learner diversity to help all learners meet their potential. However, there remains mountains of rules and regulations reinforced by traditions and shared memories of schooling that still inhibit work at scale. With sustained

local leadership, a school or district almost anywhere in the United States can implement personalized and competency-based learning. It may take waivers and renegotiated contracts and philanthropic investment, but it is more possible than ever. ■

Data Interoperability

Another area that can be addressed by national organizations, with the support of the Department of Education and the National Science Foundation, is data interoperability. Burgeoning digital content and education technology hold the potential to effectively personalize learning for students and teachers, provide teachers with data to improve learning experiences, offer students rich and engaging resources, and more. But, a major drawback is that current digital resources, drawn from a broad spectrum of sources, do not work together, limiting the use of

the resources and frustrating the lives of teachers and administrators. Schools must have access to and control of their data, all the while securing learner data privacy. Needed is a [digital learning infrastructure](#) that provides a framework to ensure digital content and technology work together. [Project Unicorn](#) is working toward the goal of creating “seamless, secure, and controlled exchange of data between applications” through partnerships with school districts and working with vendors to help them develop products with interoperability. ■

Conclusion

The convergence of growing classroom diversity, learning sciences research, sophistication of technology, and 21st-century job requirements in a global market put America's education system on track for personalizing learning so all students can master content and skills to make them successful in college and career. There are a host of challenges – state teacher certification systems, measurements of accountability, seat time, and mindsets more suited for a bygone day. Obstacles are clear, but not insurmountable.

Flexible policies at the federal, state, and local level are necessary to work around the tangle of policies that keep education captive to a one-size-fits-all model. Teachers must be included in big-picture thinking and the decision-making process. Parents and the community must be brought in as partners in learning, which takes place anytime and anywhere. And, the preK-12 system would be wise to save a seat at the table for the higher education community, as personalizing the learning experience has implications for college acceptance and for the education of pre-service teachers.

While definitions of personalized learning continue to swirl, a guiding force is that enabling policies and practices for personalizing learning requires an understanding of the learner and how that learner learns best across varied contexts. Learners are, then, the center of the education experience.

At Digital Promise Global, for example, [Learner Positioning Systems](#) (LPS) is addressing this challenge by linking research to practice to enhance opportunities for personalization. LPS facilitates the connection among researchers, edtech product developers, teachers, and

ultimately learners. Product developers can tap into the latest learning sciences research to inform the design of their products in order to effectively reach all learners. Teachers can use LPS to hone in on instructional strategies backed by research to work toward improved outcomes for the diversity of learners in their classrooms. LPS makes clear that each learner is unique and that a broad view of personalization is key to student success. It also underscores the importance of tapping into learning sciences and connecting learning scientists with education product developers, teachers and administrators.

When done right, undergirded by research on how people learn and a consideration of “whole-child” development, personalized learning welcomes students as partners in their education and turns schools into places where ALL are inspired to learn and have the best chances for success. ■