iNACOL

Promising State Policies for Personalized Learning

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

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About This Paper

This report is designed for policymakers who want to advance policies that support personalized learning in their states. The following pages provide examples of promising state policies to scale and enable personalized learning. Our intent is to inform and empower the field with examples from states creating supportive policy environments.

In *State Examples*, we highlight specific policies that leaders in other states could replicate.

While promising policies exist in many domains, critical gaps remain to enable the system to implement personalized learning at scale, for every student.

The *Future Issues* section emphasizes policies for which there are few well-developed state examples that hold great promise to move the field of personalized learning forward.

We encourage state policymakers to develop and advance a set of these promising policies, in a tailored and coordinated fashion, in a way the fits within their state's unique policy landscape and education system.

iNACOL Center for Policy Advocacy

The iNACOL Center for Policy Advocacy works to increase equity and opportunity for students by providing objective, nonpartisan policy analysis and technical assistance to federal and state policymakers and staff.

The Center's work is grounded and informed by the expertise of iNACOL's more than 4,800 members and practitioners, who represent diverse viewpoints from personalized, competency-based, blended and online education. It tracks legislation and regulations at both the state and federal levels that impact these learning environments. Each year, the Center surveys the field to understand policy barriers to and promising policies for transforming K-12 education.

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I. Introduction

Students, teachers, and school leaders are seeking flexibility and supports to enable powerful, personalized learning experiences both inside and outside of the traditional classroom.

What Is Personalized Learning?

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.

In personalized learning, instruction is tailored to 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. This is in contrast to the one-size-fits-all approach of the traditional K-12 education model, in which learning is not differentiated and students are expected to progress through the same curriculum at the same pace.

Personalized learning is an education full of variety and choice. It always involves a relationship between the teacher and the student, as well as a strong sense of community within the class as a whole. Students make decisions about the direction of their learning. Teachers discover students' prior knowledge and experiences and meet students where they are. They develop learning communities that celebrate the individuality and contributions of each student.

To personalize learning is to encourage students to develop clear goals and expectations for achievement and to support them to make good decisions in a challenging and rigorous learning environment. Teachers are allowed the time they need to work with students and to design instruction that is rigorous, flexible, and adaptable. All students are held to the same high standards and expectations for achievement to ensure equity.

A highly trained and engaged educator workforce will be the single most important driver of a successful personalized, competency-based education system.[1] Educators and leaders will take on new roles as they work individually and collectively to design customized pathways to graduation for every student. Many will require new skills to adapt instruction for students with varying levels of competency and interests. This will require significant changes to pre-service preparation, professional development, and evaluation frameworks to ensure educators have the support and resources to make this transition.

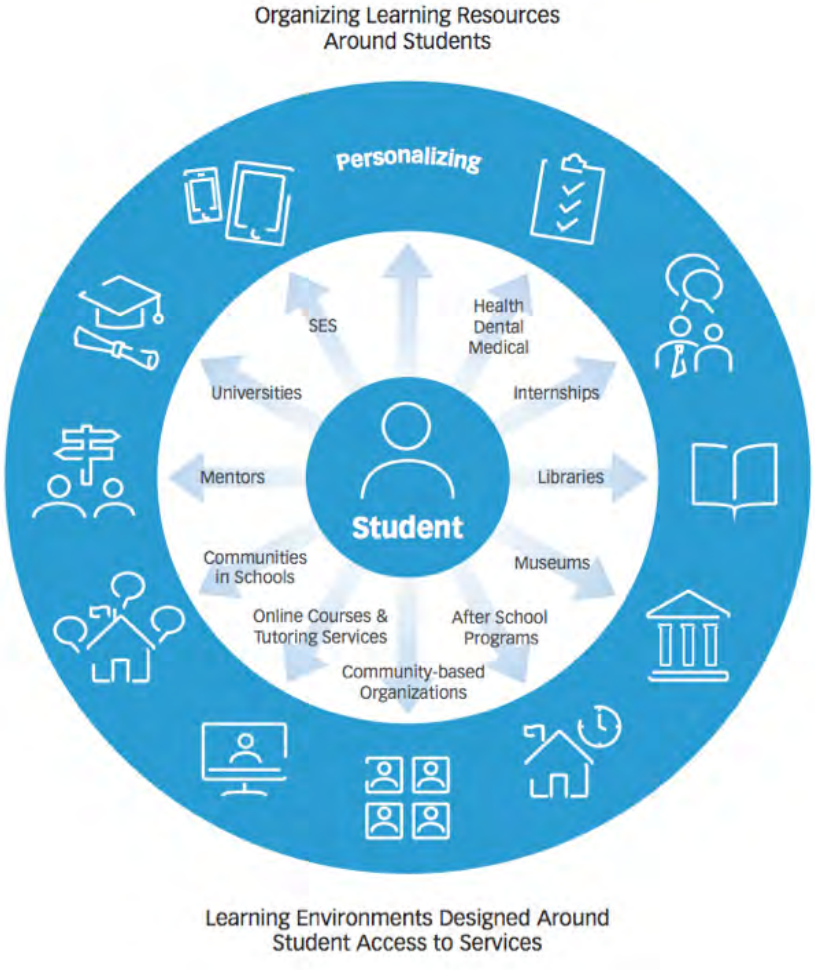
Innovating for Equity

By designing personalized learning models with equity in mind, students get the necessary interventions and supports — exactly when they need them — to meet their learning goals. These models can transform K-12 education and improve the educational outcomes of all students. Educators personalize learning with focused interventions, differentiated instruction, and supports to meet the specific needs of historically underserved populations. By meeting learners where they are and using advanced technologies to personalize learning, students are able to achieve dramatically improved outcomes and successfully attain their learning goals.

[1] Worthen, M., & Patrick, S. (Nov. 2015). The iNACOL State Policy Frameworks 2015: 5 Critical Issues to Transform K–12 Education. Retrieved from http://www.inacol.org/resource/inacol-state-policy-frameworks-2015-5-critical-issues-transform-k-12-education/

Students are expanding how they learn and earn credits, exploring new pathways for learning and success, such as with internships, online learning, dual enrollment programs, after-school learning opportunities, and community-based learning.

As shown in the figure below,[2] personalized learning organizes resources around the needs and interests of each student.



Today, it is possible to personalize learning to some extent under existing state education policies. However, as districts and states seek to implement personalized learning at scale, they may run up against local and state policy barriers. Such barriers may include seat-time restrictions, graduation requirements, educator and leader licensure requirements, funding rules, and policies on curriculum, assessments, and accountability.

Which rules and regulations encumber personalized learning in K-12 education? How might policymakers remove barriers and support conditions that optimize learning for each student's unique needs — both inside and outside of classroom walls?

[2] Powell, A., Kennedy, K., & Patrick, S. (Oct. 2013). Mean What You Say: Defining and Integrating Personalized, Blended and Competency Education. Retrieved from http://www.inacol.org/resource/mean-what-you-say-defining-and-integrating-personalized-blended-and-competency-education/

The passage of the Every Student Succeeds Act (ESSA) in December 2015, which reauthorized the Elementary and Secondary Education Act of 1965 (ESEA), ushered in a historic opportunity to rethink K-12 education across the country.[3] The new law allows localities to create systems of assessments that meet students where they are in their learning by identifying successes or issues in real time, and to use multiple measures of student learning and growth for accountability.

State policymakers have a chance to expand learning opportunities for students and create enabling policy environments to allow personalized learning to flourish.

What is the Promise of Personalized Learning?

Personalization is built on an understanding that tapping into unique interests, individual styles, and specific needs of students can shape student approaches to academic work and help make learning relevant, meaningful, and authentic. Personalization is about relationships — knowing each individual student based on their academic and personal interests.

Recent research on new school models using personalized learning approaches shows how providing powerful learning experiences targeted to individualized needs can dramatically improve student achievement. According to a 2015 RAND study, students attending schools using groundbreaking personalized learning models "made gains in mathematics and reading over the past two years that were significantly greater than a comparison group made up of similar students selected from comparable schools."[4]

Ty Cesene, Co-Director of Bronx Arena High School, which provides a personalized learning environment for over-age under-credited students, put it this way: "We aren't done innovating until 100% of our students are graduating."[5]

Equity should be a top priority for state leaders considering policies to support educators creating personalized learning environments. As state policymakers set a vision of high expectations for all and foster a culture of continuous improvement, school leaders will find innovative ways to increase equity by helping all students to succeed, especially those from traditionally underserved populations.

An equity agenda requires finding ways to serve all students, regardless of their different abilities, learning challenges, and family lives. This is central to personalized, competency-based education — tailoring the approach to every student, so all students thrive.

[3] Gentz, S. (2015, Dec. 10). New K-12 Federal Education Bill Signed into Law: ESEA Is Reauthorized. Retrieved from http://www.inacol.org/news/new-k-12-federal-education-bill-signed-into-law-esea-is-reauthorized/

[4] Pane, J. F., Steiner, E. D., Baird, M. D., & Hamilton, L. S. (Nov. 2015). Continuing Progress: Promising Evidence on Personalized Learning. Retrieved from http://www.rand.org/content/dam/rand/pubs/research_reports/RR1300/RR1365/RAND_RR1365.pdf

[5] Sturgis, C. (2014, Dec. 10). Bronx Arena: Innovating Until 100% of Students Graduate (Part 2). Retrieved from http://www.competencyworks.org/case-study/bronx-arena-innovating-until-100-of-students-graduate-part-2/

II. Promising Policies for Personalized Learning–State Examples

There are many different entry points for policymakers wishing to enable the shift to a more personalized, competency-based K-12 system in their state. States that do not yet have any enabling policies in place may wish to take one or two incremental, initial steps such as providing credit flexibility, while a state that already has made some progress may be contemplating some bolder, more comprehensive steps towards transformation. This section organizes state policy approaches to advance personalized learning into the following categories:

- States getting started and launching initiatives;
- States moving forward through specific policies to support personalized learning; and
- States taking a comprehensive state policy approach for personalized learning.

States Getting Started and Launching Initiatives

The first category of promising policy approaches are for states just getting started and launching initiatives. These states usually have fewer personalized learning models within their school systems, and these policies are meant to support early adopters and innovative school districts ready to move forward with personalized learning. The promising policies for states getting started are:

- Creating competency-based education task forces to identify barriers and policy issues and to generate a feedback loop;
- Providing flexibility to school districts to allow students to earn credits on demonstrated mastery;
- Establishing innovation zones that provide school districts flexibility with state policies and requirements in order to implement new learning models;
- Setting up pilot programs and planning grants to support personalized, competency-based learning models; and
- Creating policies that allow for multiple pathways to earning credits and to graduation.

States Moving Forward through Specific Policies to Support Personalized Learning

The second category of policy approaches is for states with an existing foundation for the shift to competency-based, personalized learning. These states may already have a cohort of pilot schools and usually have a greater body of knowledge and experience within the state from which to build. These policies are meant to scale personalized learning from smaller-scale demonstrations to a prevailing approach. The promising policies for states moving forward are:

- Implementing proficiency-based diplomas;
- Supporting innovative assessment models, and next-generation accountability models; and
- Creating state-level initiatives and partnerships to develop educator and school leader capacity to implement personalized learning.

States Taking a Comprehensive State Policy Approach for Personalized Learning

The final category is a comprehensive statewide policy approach that combines a number of the previous policies into a coordinated system meant to move all schools and student experiences to personalized learning. They may include but are not limited to:

- Providing flexibility to school districts to award credits on mastery;
- Creating flexible pathways to graduation, to higher education, and to careers;
- Implementing proficiency-based graduation requirements to ensure mastery;
- Ensuring all students have a personalized learning plan;
- Building educator and school leader capacity;
- Rethinking systems of assessments;
- Redesigning accountability for continuous improvement; and
- Aligning data systems with student-centered learning.

Each of the following sections explains one of these promising state policies for personalized learning, addresses how the policy supports student-centered learning, and highlights state examples of the policy.

A. STATES GETTING STARTED

The principal purpose of these promising policies is to remove barriers for school districts ready to move forward with personalized, competency-based learning. The following sections explain each of the promising policies for states getting started, highlighting specific examples from leading states.

1. Promising Policy: Competency-Based Education Task Forces

Transitioning from a traditional seat time-based system to a competency-based learning system often requires changes at multiple layers in policies from the school level to the state level.[6]

Policymakers can foster thought leadership and create a space for dialogue between policymakers, stakeholders, and communities across the state by establishing a formal statewide task force for competency-based education (CBE).

Task forces can help enable CBE by encouraging state leaders to develop a deeper understanding on the need for and the benefits of creating competency-based pathways to ensure student success and the importance for educators to personalize learning to meet students' needs. A task force often engages with educators and experts on best practices and policies.

Allowing conversations to happen in a low-stakes environment leads to a more thorough understanding of what is possible. State leaders benefit from having a space where they are able to exchange their ideas and concerns freely.

The task force should include educators and practitioners who are knowledgeable about personalized learning and competency education. Such a group can build understanding by examining the opportunities

[6] Competency Works. (2012). What is Competency Education? Retrieved from http://www.competencyworks.org/about/competency-education/

for continuous improvement and system coherence, improving access to educational opportunity, and increasing equity by implementing CBE.

State Policies to Create Competency-Based Education Task Forces

Iowa

In Iowa, HF365 (2012) created a CBE Task Force. The task force was convened for four meetings over the course of about one year.[7]

The task force was charged with studying competency-based instruction standards, the integration of competency-based instruction with the Iowa Core state academic standards, and developing assessment models and professional development. Iowa looked to and engaged with New Hampshire and Alaska for examples.

The task force's preliminary report[8] was submitted January 15, 2013, and the task force submitted its final plan, models, and recommendations to the State Board of Education, the Governor, and the General Assembly on December 9, 2013.[9]

The final recommendations from the task force included:

- Allowing students younger than ninth grade to earn credit in any curricular area toward graduation if they complete the requirements for the credit;
- Removing the restriction that students' advancement and credit may be used only in the areas of English or language arts, mathematics, science, or social studies;
- Establishing a research partnership with an institution of higher education to monitor and evaluate CBE systems and share findings;
- Establishing a collaborative team with higher education (1) to support smooth transitions to postsecondary institutions for students with competency-based educational experiences in high school, (2) to work toward training pre-service teachers and aspiring administrators in competency-based environments, and (3) to encourage competency-based pathways in postsecondary opportunities for all Iowans;
- Creating two full-time equivalent positions with a combination of expertise to include at least CBE, leadership, curriculum development, educator development, and an understanding of technology and its use both in the educational environment by educators and students and for monitoring and reporting;
- Urging the Iowa CBE Collaborative and other state and national experts to write model competencies that align with the Iowa Core and the universal constructs; and[10]
- Updating broadband availability.

[7] Winckler, C., Lensing, V., Wessel-Kroeschell, B., Thede, P., Anderson, B., Miller, H., . . . Heddens, L. (2012). Iowa House File 365 – Introduced. Retrieved from http://coolice.legis.iowa.gov/Legislation/85thGA/Bills/HouseFiles/Introduced/HF365.html
[8] Iowa Dept. of Education. (2015, Jan. 15). Competency-Based Education Task Force: Preliminary Report. Retrieved from https://www.educateiowa.gov/sites/files/ed/documents/CompBasedPreliminaryReport.pdf
[9] Iowa Dept. of Education. (2013, Dec. 9). Final Report of the Competency-Based Education Task Force. Retrieved from https://www.educateiowa.gov/documents/boards-committees-councils-and-task-forces/2013/12/final-report-competency-based-education
[10] Iowa Dept. of Education. (2015). Iowa CBE Collaborative. Retrieved from https://www.educateiowa.gov/pk-12/standards-and-curriculum/competency-based-pathways/iowa-cbe-collaborative

Idaho

In Idaho, the purpose of HB110 (2015) is to create a mastery-based education system. Specifically, the law includes language that establishes "a committee of educators to identify roadblocks and possible solutions in implementing mastery-based education and develop recommendations for the incubator process."[11]

The bill requires the Idaho Department of Education to conduct a statewide awareness campaign to promote understanding and interest in mastery-based learning and to develop an incubator process to identify up to 20 school districts to implement mastery-based learning models. The committee is helping to guide and inform the Idaho Department of Education throughout this process.

The Idaho Department of Education is responsible for reporting annually to the State Board of Education and the education committees of the Idaho Senate and House of Representatives regarding the state's progress toward implementing mastery-based education.

2. Promising Policy: Moving from Seat-Time to Credit Flexibility

State policymakers can enable personalized learning by removing policies that reinforce seat time. To do this, states can provide flexibility to school districts to base credits and student progressions on demonstrated mastery of competencies, including skills learned in class, online, and outside of school. Moving from time-based policies toward competency-based structures of earning credits based on mastery is a major shift and is fundamental to personalizing learning at scale.

What is seat time? "Seat time" entails policies, practices, and structures that design learning systems around time rather than student learning. The Carnegie Unit bases the awarding of academic credit on a defined minimum amount of instructional time in a subject area. The standard Carnegie Unit is defined as 120 hours, which translates into one hour of instruction per subject per day, for 24 weeks.[12] Most public high schools use the Carnegie Unit and award students one credit for a course that lasts all school year and a half credit for a course that lasts a semester. Systems of instruction based on seat time are focused on ensuring minimum exposure to academic content rather than student mastery of the content.[13]

According to the Carnegie Foundation for the Advancement of Teaching, 42 states have created at least some flexibility for school districts to base academic credit on mastery rather than only on seat time.[14]

The map on the following page shows the progression of states in advancing policies that enable and scale competency education, from no state policies to advanced policy frameworks.

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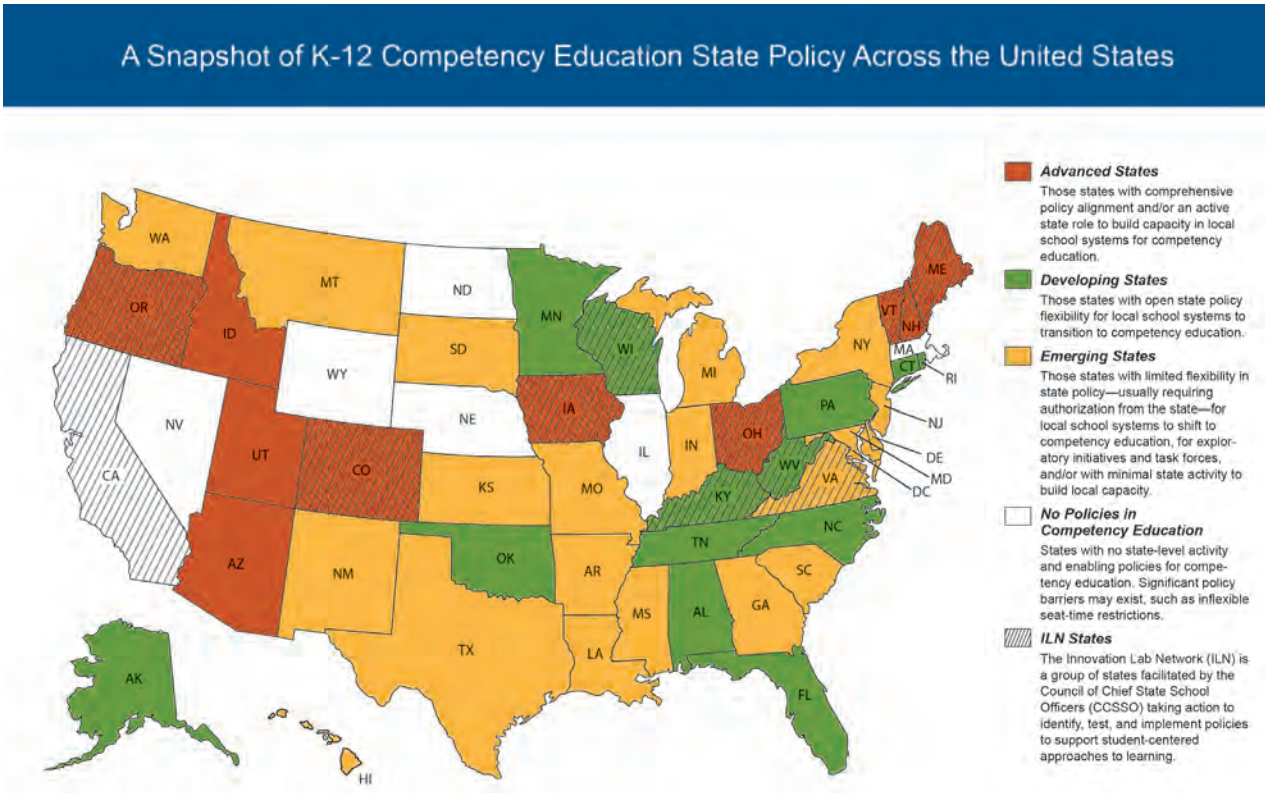
[11] Legislature of the State of Idaho. (2015). House Bill No. 110. Retrieved from http://www.legislature.idaho.gov/legislation/2015/H0110.pdf

[12] Silva, E., White, T., & Toch, T. (2015, Jan.). The Carnegie Unit: A Century-Old Standard in a Changing Education Landscape. Retrieved from http://cdn.carnegiefoundation.org/wp-content/uploads/2015/01/Carnegie_Unit_Report.pdf

[13] Sturgis, C. (2015, Feb. 11). Beyond the Carnegie Unit. Retrieved from http://www.competencyworks.org/k-12-higher-education/beyond-the-carnegie-unit/

[14] Carnegie Foundation for the Advancement of Teaching. (2014, May 14). 50-State Scan of Course Credit Policies. Retrieved from http://cdn.carnegiefoundation.org/wp-content/uploads/2013/08/CUP_Policy_MayUpdate1.pdf



In the iNACOL report *When Success Is the Only Option: Designing Competency-Based Pathways for Next Generation Learning*, state policy developments to advance competency-based pathways through credit flexibility are grouped into three categories based on stages of maturity: waivers, providing credit flexibility to all school districts to award credit on demonstrated mastery, and redesign.[15]

State Policies for Credit Flexibility

Seat Time Waivers

Seat time waiver policies allow school districts to request a waiver from the state from seat time provisions for awarding credit. Waiver requests usually must illustrate why the school district is requesting the flexibility and how the district will award credit for graduation.

West Virginia

West Virginia is an example of a state that allows school districts to base course credit on mastery; but in order to do that, the district must obtain an approved waiver from the state.

West Virginia State Board of Education (WVBE) Policy 2510 states:

> A county board of education that proposes to schedule class periods in a manner that results in fewer than 8,100 minutes of instructional time allotted for a high school course credit must obtain a waiver from the WVBE prior to implementing such a schedule.[16]

[15] Sturgis, C., & Patrick, S. (2010, Nov.). When Success Is the Only Option: Designing Competency-Based Pathways for Next Generation Learning. Retrieved from http://www.inacol.org/resource/when-success-is-the-only-option-designing-competency-based-pathways-for-next-generation-learning-2/

[16] West Virginia State Board of Education. (2014, July 1). Policy 2510: Assuring the Quality of Education: Regulations for Education. Retrieved from https://wvde.state.wv.us/policies/policy.php?p=2510&alt=1

Credit Flexibility: Allowing School Districts to Award Credit on Demonstrated Mastery

Credit flexibility is a better approach for enabling personalized learning because it offers a blanket policy to move away from seat time, rather a one-time waiver which is essentially a request for permission. Case-by-case waivers are not ideal because they require districts and school leaders to make a bureaucratic appeal and require states to grant permission for a waiver.

This policy approach allows school districts to develop alternatives to earning credit through seat time, such as awarding credits based on demonstrated mastery of standards and competencies. These policies provide districts and schools with the ability to base academic credit on factors other than seat time. Flexibility to award credit on demonstrated mastery ensures districts have allowable alternatives to seat time-based credit.

Oregon

Oregon has been, and continues to be, a leading state in credit flexibility and encouraging districts to award academic credit based on mastery rather than seat time. Since 2002, the state has permitted districts to award credit based on proficiency.

Oregon Administrative Code 581-022-1131 allows a school district or charter school to grant credit if a student demonstrates mastery by one or more of the following ways:

- Successfully completing classroom or equivalent work designed to measure proficiency in class or out of class, where hours of instruction may vary;
- Successfully passing an appropriate exam designed to measure proficiency or mastery of identified standards;
- Providing a collection of work or other evidence which demonstrates proficiency or mastery of identified standards; and/or
- Providing documentation of prior learning activities or experiences which demonstrate proficiency or mastery.[17]

Ohio

Ohio provides another good example of credit flexibility policies. In 2006, the Ohio legislature passed SB 311, which directs "the state board of education, in consultation with the Ohio board of regents… [to] adopt a statewide plan implementing methods for students to earn units of high school credit based on a demonstration of subject area competency, instead of or in combination with completing hours of classroom instruction."[18]

In March 2009, the Ohio State Board of Education adopted policies to further clarify and expand the state's credit flexibility program.[19] The Board required all school districts to allow students to earn credit by demonstrations of mastery beginning with the 2010-2011 school year.

[17] Oregon State Archives. (2009). Oregon Administrative Rules: Credit Options. Retrieved from http://www.ode.state.or.us/teachlearn/standards/creditforproficiency/581-022-1131.pdf
[18] Ohio General Assembly Archives. (1997-2014). Amended Substitute Senate Bill No. 311. Retrieved from http://archives.legislature.state.oh.us/bills.cfm?ID=126_SB_311
[19] Ohio Dept. of Education. (2014, Oct. 16). Credit Flexibility. Retrieved from http://education.ohio.gov/Topics/Quality-School-Choice/Credit-Flexibility-Plan

Redesign: Redefining the Carnegie Unit into Specific Standards and Competencies

Competency-based "redesign" policies are comprehensive; they begin with offering credit flexibility, but also provide an advanced state policy framework that results in building capacity across the systems to support competency-based pathways. Advanced redesign in moving from seat time to competency-based education includes redefining how students earn credits by redefining the Carnegie Unit into specific standards and competencies. The focus on mastery eliminates definitions of credits by seat time, and states re-examine all existing state policies that are rooted in seat time so that districts can move toward learner-centered approaches.

New Hampshire

New Hampshire is the most advanced state to move fully down this path. Credits are based on students' mastery of competencies.

In 2013, coordinating with educators from across the state, along with experts from the National Center for the Improvement of Educational Assessment and The Center for Collaborative Education, the New Hampshire Department of Education developed model state-level competencies to support and build capacity for local school systems. The state has approved competencies in mathematics, English language arts, science, art, and work-study practices.[20]

The work-study practices emphasize cross-cutting competencies such as communication, creativity, collaboration, and self-direction.[21] The competencies are provided as a model — each school district may choose the competencies it adopts.

The figure[22] below shows an example of New Hampshire's model competencies for mathematics that are derived from the state's academic standards:

New Hampshire Department of Education
Serving New Hampshire's Education Community

NEW HAMPSHIRE Common Core State Standards-Aligned MATHEMATICS COMPETENCIES

CCSSM CATEGORY	CCSSM DOMAIN	CCSSM CLUSTERS (Blue text = SBAC College & Career Ready emphases)	Mathematics COMPETENCIES
STATISTICS AND PROBABILITY	Statistics and Probability	• Interpreting Categorical and Quantitative Data • *Summarize, represent, and interpret data on a single count or measurement variable* • Summarize, represent, and interpret data on two categorical and quantitative variables • Interpret linear models	***16. Competency: Students will demonstrate the ability to apply statistical methods or reasoning to summarize, represent, and interpret categorical and quantitative data.***
	Making Inferences and Justifying Conclusions	• Understand and evaluate random processes underlying statistical experiments. • Make inferences and justify conclusions from sample surveys, experiments and observational studies	***17. Competency: Students will demonstrate the ability to make inferences and justify or critique conclusions.***
	Conditional Probability and the Rules of Probability	• Understand independence and conditional probability and use them to interpret data • Use the rules of probability to compute probabilities of compound events in a uniform probability model	***18. Competency: Students will demonstrate the ability to apply the rules of probability including conditional probability to determine the likelihood of a given outcome.***
	Using Probability to Make Decisions	• Calculate expected values and use them to solve problems • (+) Use probability to evaluate outcomes of decisions	***19. (+) Competency: Students will apply probability concepts to analyze and evaluate potential decisions and strategies.***

[20] New Hampshire Dept. of Education. (2013-2014). State Model Competencies. Retrieved from http://education.nh.gov/innovations/hs_redesign/competencies.htm

[21] New Hampshire Dept. of Education. (2014, June). New Hampshire Work-Study Practices Rationale for Work-Study Practices. Retrieved from http://education.nh.gov/innovations/hs_redesign/documents/nhsbea-approved-final.pdf

[22] New Hampshire Common Core State Standards-Aligned: Mathematics Competencies (2013, February). New Hampshire Department of Education. Retrieved from http://education.nh.gov/innovations/hs_redesign/documents/ccrs-competencies-math.pdf

Credit flexibility policies provide an initial, necessary step; but the shift to learner-centered systems requires transformation and fundamental redesign of K-12 education. States can play an important role in capacity building to help school districts utilize credit flexibility policies to move toward highly-personalized education systems.

3. Promising Policy: Innovation Zones

State policymakers can help to catalyze personalized, competency-based learning by creating innovation zones.[23] This policy strategy creates room for districts and schools to develop new learning models by offering waivers and exemptions from certain administrative regulations and statutory provisions.

State policy leaders create innovation zones to provide district and school leaders with the flexibility they need to innovate and develop new personalized learning models. Innovation zones offer state education policy waivers in order to support practitioners in the process of developing and implementing new learning models. Innovation zones serve the state in providing a safe place to identify potential policy barriers to innovation and also serve the district well in having a method to quickly address and remove policy barriers to better serve students.

State Policies to Create Innovation Zones

Kentucky

In 2012, the Kentucky legislature passed HB 37, which created the Districts of Innovation program. The policy reads: "Districts of innovation shall be provided flexibility from selected Kentucky Administrative Regulations, Kentucky Revised Statutes, and local board of education policies for school administrators, teachers, and staff to meet the diverse needs of students. The initial approval of a district of innovation shall be for a five (5) year period. Each renewal of a district of innovation shall not exceed five (5) years and shall comply with certain administrative regulations…."[24]

Currently, ten Districts of Innovation are approved in Kentucky. The Kentucky Department of Education's Division of Innovation and Partner Engagement serves as the "research and development" arm of the agency, and is charged with incubating learning innovations that could be scaled in the future.

After the Districts of Innovation were created, four districts from a total of sixteen applications were accepted in the first round. Each district had different models. Kentucky public school districts have the opportunity to apply to the Kentucky Board of Education for exemption from certain administrative regulations and statutory provisions, as well as waiving local board policy, in an effort to improve the learning of students. By re-thinking what a school might look like, districts are able to redesign student learning in an effort to engage and motivate more students and increase the numbers of those who are college- and career-ready.

[23] Patrick, S., & Gentz, S. (2016, March). Innovation Zones: Creating Policy Flexibility for Personalized Learning. Retrieved from http://www.inacol.org/resource/innovation-zones-creating-policy-flexibility-for-personalized-learning/

[24] Kentucky Legislature. (2012, July 12). Districts of Innovation. Retrieved from http://www.lrc.ky.gov/Statutes/statute.aspx?id=40161

Kentucky regulations allow districts to issue "a standards-based, performance-based credit, regardless of the number of instructional hours." Participating districts are required to commit to improving student performance, and each district must obtain 70% approval of the plan from teachers before being granted innovation-zone status. Strong educator leadership and culture are critical for success in personalized learning environments.

Some of the policies that were waived for the innovation zones included seat-time policies, the average daily attendance calculation, and barriers to participating in internships, learning opportunities, and after-school programs outside of school walls. Innovation zones help create policy space for educators to develop innovative instructional models.

Colorado

Colorado's Innovation Schools Act (2008) provides opportunities for schools and districts to develop innovative practices, better meet the needs of individual students, and allow more autonomy to make decisions at the school level.[25]

Colorado created a six-step application process:

1. Develop an innovation plan.
2. Obtain consent.
3. Seek district waivers/approval of the plan.
4. Seek state waivers/approval of the plan.
5. Seek approval of collective bargaining waivers (if applicable).
6. Implementation and review.[26]

Thus far, most of the innovation schools in the state are located in Denver. A recent study of the Denver Public Schools' innovation schools found that the four major reasons that schools sought innovation status were to gain greater control over their budgets, schedule, staffing, and school operations.[27]

If the academic performance of an innovation school or one or more schools in an innovation zone are not improving sufficiently, the local school board may revoke a school's innovation status, or may require that the plan be revised to improve academic performance.

The Colorado Department of Education encourages local school boards to proactively solicit one or more schools in their district to apply for innovation school status, and to work collaboratively with schools on the planning and application process. There is no limit on the number or percentage of innovation schools that can operate within a single district. Local boards may collaborate with their schools so that all schools in the district are within an innovation school zone, as long as the process for approval is followed at each school and each school is given the opportunity to participate in planning.

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[25] Colorado State Legislature. (2008). Innovation Schools Act. Retrieved by https://www.cde.state.co.us/sites/default/files/documents/choice/download/sb130/statutesb130.pdf

[26] Colorado Dept. of Education. (2013, August). Guidance for Implementation of the Innovation Schools Act, Version 1.3. Retrieved from https://www.cde.state.co.us/choice/innovationplanguidance

[27] Colorado Dept. of Education. (2014). Innovation Schools – By District. Retrieved from https://www.cde.state.co.us/choice/innovationschoolsarchive

4. Promising Policy: Pilot Programs

Pilot programs examine which strategies work in practice. A successful pilot program will help lead to sharing and scaling best practices in other localities. Ultimately, state pilot efforts can provide resources to be shared statewide and build increased understanding for how student-centered learning can be transformative.

Elements of a promising policy creating a pilot program could include:

- Funding planning and launch phases;
- Convening practitioners and educators to share best practices through communities of practice;
- Building educator capacity for personalized learning;
- Developing common performance assessments;
- Calibrating and assessing student work and evidence in performance tasks with regard to proficiency and deeper learning;
- Providing support for the systems change in order to transform to student-centered, competency-based learning; and
- Fostering a process of continuous improvement, sharing, and collaboration (rather than top-down compliance) in monitoring pilots.

States create new learning-model pilots to help launch small-scale, short-term programs that localities use to determine how a larger program might work in practice and go to scale. While innovations in schools are taking hold across a state, it is helpful for policymakers to support collaboration across pilots to help bring together innovative practitioners and educators to build capacity, to share lessons learned, and to address the changes needed in instructional methods. Pilot programs are one way to connect and support innovators to plan, implement, and ultimately scale high-quality competency-based education practices and systems.

Pilots are generally limited to a specified number of districts, and they are created to enable new learning models. A state educational agency may use pilots to identify which leaders and localities are ready to move forward with personalized learning innovations. Pilots often help educators work through planning stages, identify core design elements, communicate about what competency-based education systems look like and how they work, build educator capacity for assessing performance tasks as students create evidence of mastery, and fine tune strategies that cohesively work together to create a true mastery-based system through exhibitions of student work.

State Policies to Set Up Pilot Programs

Ohio

Ohio's Competency-Based Education Pilot (HB 64, 2015) is designed to:

- Promote innovative learning that has meaning to students, cuts across multiple curriculum areas, and extends outside of the classroom;
- Advance students to higher-level work once they demonstrate mastery of competencies, rather than advancing based upon seat time in the classroom;
- Give supports to struggling students before they advance, and prevent further failure down the road;
- Keep all students on pace to graduate and ensure those below level make rapid progress with differentiated supports;
- Graduate students with deeper learning opportunities as well college- and career-ready skills; and
- Inform future development of statewide competency education policies and programs.[28]

Some pilots, like the program in Ohio, provide funding support for planning and launching for selected applicants. The Ohio Competency-Based Education Pilot appropriated $1 million per year for 5 school districts and provided that "funding will be awarded in an amount up to $200,000 per academic year for selected applicants."[29]

In testimony to the Ohio legislature, iNACOL President and CEO Susan Patrick stated, "[The] grants provide the seed money needed for districts to build human capital systems that can support a shift to new learning models. These funds are critical to developing capacity within school districts to drive change and to support educators doing the difficult work of redesigning the future of teaching and learning."[30]

5. Promising Policy: Multiple, Flexible Pathways

Multiple pathways are an important element of personalized learning environments because they create distinct, equally rigorous paths for students to pursue their interests and gain the real-world skills and experiences they need to be successful after high school.

Multiple pathways often take advantage of learning opportunities outside of traditional classrooms and can include expanded learning opportunities such as after-school programs, apprenticeships, community service, internships, independent study, online courses, performing arts, private instruction, and career and technical and college-level coursework.

These pathways allow students to customize their education to meet their unique needs and circumstances and gain real-world knowledge, skills, and experiences.

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[28] Ohio Dept. of Education. (2016, April 21). Competency-Based Education Pilot. Retrieved from http://education.ohio.gov/Topics/Other-Resources/Competency_Based-Education-Pilot

[29] Ohio Legislature. (2015, June 30). House Bill No. 64. Retrieved from http://search-prod.lis.state.oh.us/solarapi/v1/general_assembly_131/bills/hb64/EN/08?format=pdf

[30] Patrick, S. (2015, May 11). Written Testimony to the Ohio Senate Finance Subcommittee on Education In Support of H.B. 64, Competency-Based Education Pilot Program. Retrieved from http://www.inacol.org/wp-content/uploads/2015/05/Susan-Patrick-iNACOL-Written-Testimony-to-Ohio-Senate-Finance-Subcommittee-on-Education-5-11-20151.pdf

State Policies to Encourage Multiple Pathways

New York

In January 2015, the New York Board of Regents approved changes to its high school graduation requirements, allowing students more flexibility to pursue multiple pathways.[31]

Students must continue to pass exams in English, mathematics, science, and social studies, but have a choice on the fifth exam they must pass in order to graduate. They can choose from examinations in the arts,[32] career and technical education,[33] or a language other than English. Students can also choose examinations in an additional course in the humanities or the sciences.[34]

New York's State Pathways in Technology (P-TECH) is an early college model that prepares thousands of students for highly-skilled jobs in technology, manufacturing, healthcare, and finance.[35]

The P-TECH model delivers workplace learning, ongoing mentoring by professionals in chosen career sectors, worksite visits, speakers, and internships.[36] It also includes intensive, individualized academic supports by K-12 and college faculty that enable students to progress through the program at their own pace. Students who successfully complete a P-TECH program earn an Associate of Applied Science degree and have preference in job placement with participating business partners.

Vermont

In 2013, the Vermont legislature passed Act 77 to create flexible pathways to graduation, to higher education, and to meaningful careers.[37]

The following summarizes three of the critical pathways for Vermont students:

- Dual enrollment – Vermont high school juniors and seniors are eligible to take up to two dual enrollment courses.[38]
- Early College Program – Vermont colleges and universities can develop an early admission program that allows high school seniors to take a full year of college-level classes while completing their high school degrees. Funding is equal to 87% of a student's base education funding, which postsecondary institutions accept in lieu of tuition. Currently, six Vermont institutions of higher education provide Early College Programs.[39]

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[31] New York State Education Dept. (2015, April 14). Multiple Pathways to Graduation. Retrieved from http://www.p12.nysed.gov/ciai/multiple-pathways/docs/multiple-pathways-4+1-field-memo.pdf
[32] New York State Education Dept. (2016, March 22). Department-Approved Pathway Assessments in the Arts. Retrieved from http://www.p12.nysed.gov/ciai/multiple-pathways/docs/arts-approved-assessments.pdf
[33] New York State Education Dept. (2016, March 29). Department-Approved Pathway Assessments in Career and Technical Education. Retrieved from http://www.p12.nysed.gov/ciai/multiple-pathways/docs/CTEApproved-Assessments.pdf
[34] New York State Education Dept. (n.d.). Department-Approved Alternative Examinations Acceptable for Meeting Requirements for a Local or Regents Diploma. Retrieved from http://www.p12.nysed.gov/assessment/hsgen/archive/list.pdf
[35] New York State Education Dept. (2015, Sept. 18). The New York State Pathways in Technology Program. Retrieved from http://www.highered.nysed.gov/kiap/scholarships/PTech.htm
[36] Pathways in Technology. (2016). Retrieved from http://ptechnyc.org/
[37] Vermont Legislature. (2014). No. 77. An act relating to encouraging flexible pathways to secondary school completion. Retrieved from http://www.leg.state.vt.us/docs/2014/Acts/ACT077.pdf
[38] Vermont Agency of Education. (2013). Flexible Pathways: Dual Enrollment. Retrieved from http://education.vermont.gov/flexible-pathways/dual-enrollment
[39] Vermont Agency of Education. (2013). Flexible Pathways: Early College. Retrieved from http://education.vermont.gov/flexible-pathways/early-college

- Work-Based Study – The Vermont Agency of Education states that "work-based learning experiences [are]...relevant, rigorous, challenging, and rewarding for students, parents, educators, and businesses. These opportunities particularly help students make the connection between academic principles and real world applications."[40]

Lousiana

Louisiana shows how Course Access can increase student access to high-quality, career and technical education that leads to meaningful career credentials. Course Access provides public school students with expanded course offerings across learning environments from diverse, accountable providers. It also supports and enables student-centered learning.[41]

Districts in the state utilize the state's Course Access program through Louisiana's Supplemental Course Academy. A number of districts use the program to partner with trade unions and other technical providers to create technical career pathways that lead to valuable career credentials.

IT Academies and Coding Initiatives

According to Code.org, there are over half a million open computing jobs nationwide. In 2015, there were only 42,969 computer science students who graduated from college and entered the workforce.[42]

As demand remains high for people with skills in informational technology (IT) and computing, states have responded by creating IT academies and encouraging local school districts to create computer science pathways to prepare students for these fields.

Washington State and Microsoft have partnered to provide Microsoft Imagine Academy to all Washington high schools.[43] Microsoft Imagine Academy provides training and industry-recognized certifications in a number of Microsoft products — including Word, Excel, Access, and Project — as well as advanced topics, including programming, web development, and database development. Microsoft has similar partnerships with other states, including North Carolina[44] and West Virginia.[45]

[40] Vermont Agency of Education. (2013). Flexible Pathways: Work-based Learning. Retrieved from http://education.vermont.gov/work-based-learning
[41] Frost, D., & Worthen, M. (2015, Oct.). Course Access: Providing Equitable Access to High-Quality Learning Opportunities. Retrieved from http://www.inacol.org/resource/course-access-providing-equitable-access-to-high-quality-learning-opportunities/
[42] Code.org. (2015). Promote Computer Science. Retrieved from https://code.org/promote
[43] State of Washington. Office of Superintendent of Public Instruction. (2016, Feb. 5). Career and Technical Education. Retrieved from http://www.k12.wa.us/CareerTechEd/IT-Academy.aspx
[44] Public Schools of North Carolina. (2015). Microsoft IT Academy. Retrieved from http://www.dpi.state.nc.us/msita/
[45] West Virginia Dept. of Education. (2014). Microsoft IT Academies. Retrieved from http://wvde.state.wv.us/technology/office365/academy.html

B. STATES MOVING FORWARD

Promising policies for *states moving forward* scale personalized learning from smaller-scale demonstrations to a prevailing approach. For the most part, they do not mandate personalized learning, but they put strong structures and supports in place to move school districts towards system-wide transformation.

Proficiency-based diplomas do not explicitly require competency-based and personalized learning environments but rather put proficiency-based graduation requirements in place. Innovative systems of assessments and next-generation accountability require students to demonstrate deeper learning, including the application and creation of knowledge. Finally, state-level initiatives and partnerships to develop educator and school-leader capacity provide the knowledge and skills necessary to transform K-12 education.

Each of these policies help shift systems toward greater equity for students, providing real meaning to progressions toward college and career readiness. The following sections explain each of these promising policies for states moving forward, highlighting specific examples from leading states.

1. Promising Policy: Proficiency-Based Diplomas

Proficiency-based diplomas, which require students to demonstrate mastery of academic content before graduating, support the adoption of personalized, competency-based approaches to learning. They require graduation decisions to be based on students demonstrating what they have learned rather than how many seat-time credits they have accumulated.[46]

With proficiency-based graduation requirements, schools have an incentive to begin to design powerful, personalized, student-centered learning environments with multiple pathways in order to ensure that students can access different ways to learn. Students must demonstrate high levels of mastery on state standards and meet the expectations needed to graduate and be successful in the future.

State Policies to Establish Proficiency-Based Diplomas and Graduation Requirements

Vermont

Vermont has defined proficiency-based graduation requirements as "the locally-delineated set of content knowledge and skills that have been determined to qualify a student for earning a high school diploma."[47] These requirements "assure that when students show mastery in the essential skills and knowledge of diverse content areas and consequently receive a high-school diploma, they are prepared for the college, career and citizenship opportunities ahead."

Vermont's Education Quality Standards were approved by the State Board of Education in 2013, and require schools to have proficiency-based graduation requirements for students graduating in 2020 and for each subsequent graduating class.[48]

[46] Sturgis, C. (2016, Jan. 13). What is it Going to Mean to Have a Proficiency-Based Diploma? Retrieved from http://www.competencyworks.org/reflections/what-is-it-going-to-mean-to-have-a-proficiency-based-diploma/

[47] Vermont Agency of Education. (2014). Proficiency-Based Graduation Requirements: An Introduction to the AOE Sample Graduation Proficiency Documents. Retrieved from http://education.vermont.gov/documents/EDU-PBGR_Intro.pdf

[48] Vermont Agency of Education. (2016, April 8). State Board of Education: Education Quality Standards. Retrieved from http://education.vermont.gov/state-board/rules/2000

Students can demonstrate mastery through multiple means, including teacher-designed assessments, papers, presentations, portfolios, or projects.

Local school districts adopt their own specific graduation requirements but must adhere to state standards in the following curriculum areas: literacy; mathematical content and practices; scientific inquiry and content knowledge; global citizenship; physical education; health education; artistic expression; and transferable skills, including communication, collaboration, creativity, innovation, inquiry, problem solving and the use of technology.

Maine

In 2012, the Maine legislature passed L.D. 1422, which required schools to issue proficiency-based diplomas for the graduating class of 2018 and beyond.[49] An analysis of Maine's implementation made the following observation:

> Although most, if not all, of the state's districts are still fairly early in their journeys, they're already seeing benefits that include improved student engagement, greater attention to the development of robust intervention systems, and more deliberate, collective, and collaborative professional work.[50]

Students will have to demonstrate proficiency in the following content domains:

- English
- Mathematics
- Science
- Social studies
- Health and physical education
- Career and educational development
- World languages
- Visual and performing arts

In 2014, the New England Secondary School Consortium (NESSC)[51] announced that all the public colleges and universities — as well as three private colleges in Connecticut, Maine, New Hampshire, Rhode Island and Vermont — pledged to accept proficiency-based transcripts and that applicants with proficiency-based diplomas will not be disadvantaged in any way in the college admissions process.[52]

As Maine has progressed towards implementing proficiency-based diplomas, some have voiced concerns that students are not going to be prepared by 2018 to show mastery in all eight content domains. Consequently, L.D. 1627, which was passed and signed in April 2016, pushes back the proficiency-based

[49] Maine Legislature. (2012). Education Policy. Retrieved from http://www.mainelegislature.org/legis/bills/bills_125th/billtexts/SP043901.asp
[50] Ritterband, V., & Heller, R. (2015, March-April). From Seat Time to Mastery. Harvard Education Letter, 31(3). Retrieved from http://www.jff.org/blog/2015/05/18/harvard-education-letter-seat-time-mastery
[51] New England Secondary School Consortium. (2014, June 3). 56 New England Colleges and Universities Support Proficiency-Based Education and Stronger Student Preparation. Retrieved from http://newenglandssc.org/resources/collegiate-endorsement/
[52] Sturgis, C. (2014, June 5). 100%. Retrieved from http://www.competencyworks.org/resources/100-percent/

graduation requirements to 2021. It also phases in the required domains so that it will be 2025 when students have to show proficiency in all eight content domains.[53]

Colorado

In 2007, Colorado passed law H.B. 07-1118, which requires each school district to develop graduation requirements that meet or exceed requirements developed by the Colorado State Board of Education.[54]

In response, the Colorado Department of Education released its Menu of College and Career-Ready Demonstrations. These options include minimum scores on college placement exams, college entrance exams, AP and IB exams, passing grades in concurrent enrollment courses, and individualized success as demonstrated by industry certifications or capstone projects.

The Colorado Department of Education has provided guidance to school districts interested in using industry certifications or capstone projects to meet student graduation requirements.

These requirements will take effect for the graduating class of 2021. The Colorado Department of Education has provided extensive information on the history and roll-out of the revised graduation criteria.[55]

Arizona

In 2011, Arizona created the Grand Canyon Diploma,[56] a central part of the Move On When Ready program in which Arizona high schools may voluntarily participate.[57]

Students can graduate with a Grand Canyon Diploma by earning scores determined to be equivalent to college readiness by the Arizona State Board of Education on one of the approved assessment systems (primarily Cambridge and ACT QualityCore).[58] According to the Center for the Future of Arizona, "Move On When Ready is working with more than 20 diverse high schools, impacting more than 26,000 students statewide."[59]

2. Promising Policy: Modernizing Systems of Assessments

When the Elementary and Secondary Education Act (ESEA) was first enacted in 1965, its goal was to ensure that the most vulnerable pupils were receiving equitable resources. The most recent reauthorization of ESEA, the Every Student Succeeds Act (ESSA), provides states and localities flexibility that can be used to create competency-based, personalized learning environments. The passage of the ESSA[60] in December

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[53] Maine Legislature. (2016, April 19). An Act to Implement Certain Recommendations of the Maine Proficiency Education Council. Retrieved from http://www.mainelegislature.org/legis/bills/getPDF.asp?paper=SP0660&item=3&snum=127

[54] Colorado Legislature. (2007). Concerning Guidelines for High School Graduation. Retrieved from http://www.leg.state.co.us/clics/clics2007a/csl.nsf/billcontainers/5CBD607BCDE3BC2E87257251007B68B5/$FILE/1118_enr.pdf

[55] Colorado Dept. of Education. (2015). Developing Colorado's High School Graduation Requirements. Retrieved from http://www.cde.state.co.us/postsecondary/graduationguidelines

[56] Arizona State Legislature. (2012). Grand Canyon Diploma. Retrieved from http://www.azleg.gov/ars/15/00792-03.htm

[57] Center for the Future of Arizona. (2016). Move On When Ready. Retrieved from http://www.arizonafuture.org/mowr/

[58] Center for the Future of Arizona. (2011, Jan.). Move On When Ready Rules Approved by the Arizona State Board of Education. Retrieved from http://arizonafuture.org/assets/docs/mowr_resources/AZStateBoardEdMOWRRulesAdoptedJan2011_000.pdf

[59] Center for the Future of Arizona. (2015). Move On When Ready: Personalized learning to prepare every student for college and career. Retrieved from http://arizonafuture.org/assets/docs/mowr_resources/CFA_MOWR_Overview.pdf

[60] Gentz, S. (2015, Dec. 10). New K-12 Federal Education Bill Signed into Law: ESEA Is Reauthorized. Retrieved from http://www.inacol.org/news/new-k-12-federal-education-bill-signed-into-law-esea-is-reauthorized/

2015 ushered in a new era — a historic opportunity to rethink systems of assessments to support continuous improvement of student-centered learning.[61]

ESSA allows states to design systems of assessments that provide data to support continuous, real-time improvement of student learning towards college and career readiness, rapid closure of subgroup achievement gaps, and provide the flexibility to align with and support next generation learning models.

ESSA includes a number of key provisions to help states interested in building next generation assessment systems. All states may now develop systems of assessments (for federal accountability purposes) that incorporate individual student growth, use multiple measures of student learning from multiple points in time to determine summative scores, and use adaptive assessments that can measure where students are in their learning. A new Innovative Assessment Pilot allows up to seven (initially) states to design, and pilot with a subset of districts, statewide systems of assessments that include locally developed assessment items. These improvements will help states design more useful assessments that guide improvements in teaching and learning to ensure all students master the academic knowledge, skills, and competencies necessary for success in college and career.

ESSA specifically permits the use of competency-based assessments, instructionally embedded assessments, interim assessments, cumulative year-end assessments, computer-adaptive assessments, and performance-based assessments.

Prior to the passage of ESSA, federal law prohibited the use of adaptive assessments and test items outside of a student's grade level for federal accountability purposes. Adaptive assessments can be used to more accurately pinpoint student performance and growth, in addition to determining grade-level proficiency. Students should be allowed to move on when ready. Students should also get the supports they need to stay on track, and the education system needs to *identify and meet students where they are in their learning*.

Allowing multiple assessments throughout the year provides an important step forward for competency-based education, as it opens up the possibility to administer assessments when students are ready to take them. Multiple measures throughout the year empower educators and students to continuously monitor and improve learning.

A truly competency-based education system will shift to modernized systems of assessments. Students will no longer take "fill in the bubble exams," but demonstrate mastery in various ways, such as performance-based assessments. Performance-based assessments require both the graders and assessments to be objective, and that calls for inter-rater reliability. The term "inter-rater reliability" refers to the degree of agreement among raters. Localities participating in competency-based education must cultivate educators to use professional judgement to ensure quality and equitable grading of assessments. This will require significant attention to and investment in building educator and leader capacity for next generation assessments.

First and foremost, better systems of assessments support learning with better data on where students are in their learning. These new, innovative systems of assessments will also allow for the development of

[61] U.S. House of Representatives Document Repository. (2015, Nov. 30). Every Student Succeeds Act. Retrieved from http://docs.house.gov/billsthisweek/20151130/CRPT-114HRPT-S1177.pdf

more meaningful accountability. Accountability models in any redesign need to be focused on achieving greater transparency and equity with multiple measures of student learning and learning environments. They should consider the percentage of students who have met or exceeded grade-level standards as well as examine achievement levels of each demographic sub-group. Supports for schools driving toward improvement need to better align with the goals of ensuring each and every student will achieve success. As a system, we need to answer the question "How are we going to get students who are not yet proficient there?" And we need to focus resources to make it happen, for every student.

State Policies for Modernizing Systems of Assessments

New Hampshire

In 2012, New Hampshire began to pilot a new system of assessments that supported the state's comprehensive shift away from seat time. This new strategy was an outgrowth of the statewide shift away from seat time towards competency and was authorized in Title XV, Chapter 193-C of the New Hampshire Education Code.[62]

The Performance Assessment for Competency Education (PACE) system was approved by the US Department of Education in 2015 for use in state accountability under the Secretary's waiver authority at the time.[63]

PACE's key components include:

- Common performance tasks that have high technical quality;
- Locally designed performance tasks with guidelines for ensuring high technical quality;
- Regional scoring sessions and local district peer review audits to ensure sound accountability systems and high inter-rater reliability;
- A web-based bank of local and common performance tasks; and
- A regional support network for districts and schools.[64]

According to the New Hampshire Department of Education, the successful implementation of this new, innovative system of assessments requires significant local capacity and buy in: "The pilot required extensive training and local commitment to managing their testing locally. Although the work was partly funded with generous grants from the Nellie Mae Education Foundation and the William and Flora Hewlett Foundation, the PACE pilot project requires a large scale commitment by administrators and teachers of participating districts."[65]

The Innovative Assessment Pilot in ESSA will allow up to seven (initially) states to apply for the type of flexibility that was provisionally granted to New Hampshire for the PACE pilot. This is a historic opportunity for states to rethink systems of assessments to support personalized learning.

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[62] New Hampshire General Court. (2012). Educational Improvement and Assessment Program. Retrieved from http://www.gencourt.state.nh.us/rsa/html/XV/193-C/193-C-mrg.htm

[63] United States Department of Education. (2015, March 5). [Letter to the Commissioner]. Retrieved from http://education.nh.gov/assessment-systems/documents/used-ltr.pdf

[64] New Hampshire Department of Education. (2015). NH Performance Assessment Network. Retrieved from http://education.nh.gov/assessment-systems/

[65] New Hampshire Department of Education. (2015). Performance Assessment of Competency Education (PACE). Retrieved from http://education.nh.gov/assessment-systems/pace.htm

3. Promising Policy: State Initiatives to Build Local Capacity

States are much more likely to be successful in their support of personalized learning[66] if they are intentional about building the capacity of school leaders and educators.[67]

In student-driven, personalized learning environments, educators take on new roles not often emphasized in traditional teacher preparation programs.[68] In addition, personalized learning generally requires districts to redesign and update certain system structures and procedures.[69] For these transformations to be successful, states and districts need to build school leader and educator capacity to innovate and lead change.

State Initiatives to Build Capacity in Local School Districts

Providing Relevant, Actionable Information

Some state educational agencies are providing actionable information through their websites to support school leaders who are ready to innovate.

Kentucky

The Kentucky Department of Education's website for innovation contains useful, curated information to help Kentucky districts and schools move to personalized learning.[70] The website includes Exemplars of Design Principles of Innovation to help school leaders understand the most important elements of a next-generation learning system. It also outlines the state's Districts of Innovation program. In addition, the Department supplies a survey tool for school districts to self-assess their readiness for innovation. Lastly, it highlights Innovative School Models for school leaders to learn about specific examples of highly-personalized schools.

These resources allow school leaders throughout Kentucky to easily find high-quality information on personalized learning and how to begin to transform learning environments.[71]

Offering Technical Assistance

Some state agencies provide direct technical assistance to schools ready to move toward personalized learning.

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[66] Abel, N. (2016, Feb. 17). What is Personalized Learning? Retrieved from http://www.inacol.org/news/what-is-personalized-learning/
[67] Sturgis, C. (2015, June). Implementing Competency Education in K-12 Systems: Insights from Local Leaders. Retrieved from http://www.inacol.org/resource/implementing-competency-education-in-k-12-systems-insights-from-local-leaders/
[68] Pace, L., & Worthen, M. (2014, Oct.). Laying the Foundation for Competency Education: A Policy Guide for the Next Generation Educator Workforce. Retrieved from http://www.inacol.org/resource/laying-the-foundation-for-competency-education-a-policy-guide-for-the-next-generation-educator-workforce/
[69] Glowa, L. (2016). Student-Centered Learning: Functional Requirements for Integrated Systems to Optimize Learning. Retrieved from http://www.inacol.org/resource/student-centered-learning-functional-requirements-for-integrated-systems-to-optimize-learning/
[70] Kentucky Dept. of Education. (2015, Oct. 14). Innovation. Retrieved from http://education.ky.gov/school/innov/Pages/default.aspx
[71] Abel, N. (2016, April 4). The EdLeader Reading List for the Shift to Competency Education. Retrieved from http://www.inacol.org/news/the-edleader-reading-list-for-the-shift-to-competency-education/

Arkansas

The Arkansas Office of Innovation for Education provides research and technical assistance for schools to create transformational, student-centered learning environments.[72] The Office employs specialists to work with schools to match personalized learning approaches with each school's specific needs and contexts. The Office also connects school leaders with schools and conferences around the country to learn about and see leading personalized learning models in action.

Creating Specialized Training and Professional Development Programs

New Hampshire

In the fall of 2015, the New Hampshire Department of Education released its Vision 2.0,[73] which explains how, over the next five years, the Department will build capacity for school districts to transform learning environments by expanding training related to its Performance Assessment of Competency Education (PACE) program.[74]

New Hampshire plans to implement a system of supports to interested school districts "based on tiers of readiness from building awareness/literacy to whole district transformation."[75] For Tier 3 and Tier 2 districts, which are not yet ready to move to full transformation, the Department plans to provide access to professional development from state and national experts on performance assessment, and technical assistance on performance task development, instructional design considerations, and creating local structures, such as professional learning communities, to support the work.

For Tier 1 districts, which are ready to move with transformation and able to "both gain and share expertise in competency-based learning and performance assessment," the state plans to provide "workshops facilitated by experts, consultants and coaches allowing cross-school learning of performance assessments within specific content areas and across grade-spans."[76] These districts will have the opportunity to participate in the development and implementation of common performance assessment tasks for accountability purposes.

Facilitating Peer Learning Networks

Iowa

In 2012, Iowa passed legislation to create a competency-based education task force. The task force recommended the legislature direct the Iowa Department of Education to "identify up to 10 districts that would serve as models across the state."[77]

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[72] Frost, D., Worthen, M., & Gentz, S. (2015, Sept. 14). Building District Capacity for Student-Centered Learning and Scaling Innovation in Arkansas. Retrieved from http://www.inacol.org/news/building-district-capacity-for-student-centered-learning-and-scaling-innovation-in-arkansas/

[73] New Hampshire Department of Education. (2015, Fall). NH Vision 2.0: New Hampshire Goes First – A Blueprint to Scale Competency-based Education across a PreK-20 System. Retrieved from http://education.nh.gov/documents/nh-vision.pdf

[74] New Hampshire Department of Education. (2015). Performance Assessment of Competency Education (PACE). Retrieved from http://www.education.nh.gov/assessment-systems/pace.htm

[75] New Hampshire Department of Education. (2015, Fall). NH Vision 2.0: New Hampshire Goes First – A Blueprint to Scale Competency-based Education across a PreK-20 System. Retrieved from http://education.nh.gov/documents/nh-vision.pdf

[76] Ibid.

[77] Iowa Dept. of Education. (2012). Competency-based Education Task Force. Retrieved from https://www.educateiowa.gov/competency-based-education-task-force

The Iowa Department of Education created the Iowa CBE Collaborative to regularly convene leadership teams from each of the 10 participating school districts.[78] Some of the Collaborative's objectives include establishing demonstration sites in the participating school districts, to develop model competencies and performance assessments, and to create tools and processes to document and share results, challenges, and lessons learned from implementing competency-based learning.[79]

Idaho

The Idaho Legislature passed HB 110 (Laws 2015, Chapter 68) in 2015 to advance mastery-based education in the state.[80] The legislation directs the Idaho Department of Education to identify an initial cohort of 20 school districts to serve as mastery-based learning incubators in 2017. The Idaho Department of Education recently created the Idaho Mastery Education Network to support these incubator schools and to create a professional learning community amongst these schools whereby they can learn from one another.[81]

Leveraging Partnerships to Improve Local or State Capacity

Multiple States

Many of the states and regions that are taking steps to advance personalized learning have leveraged partnerships with other organizations to increase local or state capacity.

For example, the state educational agencies in Connecticut, Maine, New Hampshire, Rhode Island, and Vermont have partnered and worked extensively with the Great Schools Partnership and the New England Secondary School Consortium to advance student-centered learning in their states. Other examples include Colorado partnering with the Colorado Education Initiative and Kentucky partnering with the Council of Chief State School Officers (CCSSO) Innovation Lab Network and the Center for Innovation in Education.

[78] Iowa Dept. of Education. (2012). Iowa CBE Collaborative. Retrieved from https://www.educateiowa.gov/pk-12/standards-and-curriculum/competency-based-pathways/iowa-cbe-collaborative

[79] Iowa Dept. of Education. (2012). Goal, Objectives, and Responsibilities Competency-based Education (CBE): Pathways to College, Career, and Life Ready Graduates. Retrieved from https://www.educateiowa.gov/sites/files/ed/documents/Goal%20Objectives%20and%20Responsibilities_0.pdf

[80] Legislature of the State of Idaho. (2015). House Bill No. 110. Retrieved from http://www.legislature.idaho.gov/legislation/2015/H0110.pdf

[81] Idaho State Dept. of Education. (2015). Mastery Education. Retrieved from http://www.sde.idaho.gov/mastery-ed/

How New Hampshire Transformed to a Competency-Based System

For almost two decades, New Hampshire has shown how consistent, supportive state leadership can result in a system-wide transformation from traditional, one-size-fits-all education to more personalized, competency-based learning. Many schools throughout the state have moved to student-centered learning environments, and every high school must award credits based on demonstrations of mastery.

Policymakers in other states interested in transforming their education systems towards personalized learning can benefit from learning about and understanding New Hampshire's history.

In New Hampshire's Story of Transformation, the New Hampshire Department of Education makes the following point:

> One of the most important things we have done as a state is to anchor the change we seek to our values. Through this ongoing exercise, a set of values has emerged as foundational to our efforts, underpinning the work and providing us with a critical screen through which we monitor the existing efforts and evaluate new opportunities to create the system of learning New Hampshire wants and needs.[82]

New Hampshire's educational core values, which are reflected in policy, leadership, and practice, are:

- Moving to a competency-based system;
- Supporting educators;
- Local innovation is the driver of change; and
- An integrated learning system.[83]

Early Piloting and Statewide Conversations

New Hampshire's transition from Carnegie Units to competencies for student academic advancement occurred over almost two decades. From 1998 to 2004, the state launched competency-based education pilots in 27 high schools.[84] Starting in 2004, the state began convening educators, leaders, and community members to redefine the goals and design of the state's high school system.

The New Hampshire Department of Education organized a summit to collect data and input on several aspects of high school redesign, including personalization, rigor, and relevance.[85] Much of the input is summarized in a 2005 report.[86] The initial policy in New Hampshire provided districts with credit flexibility, but few districts took advantage of these policies to innovate at the time.[87]

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[82] New Hampshire Department of Education. (2014). New Hampshire: Our Story of Transformation. Retrieved from http://education.nh.gov/documents/nh-story.pdf
[83] Ibid.
[84] Ibid.
[85] New Hampshire Dept. of Education. (2012). Narrative History and Related Documents. Retrieved from http://education.nh.gov/innovations/hs_redesign/background.htm
[86] New Hampshire Dept. of Education. (2005, March). High School Leadership: Preliminary Report. Retrieved from http://education.nh.gov/innovations/hs_redesign/documents/prelim_report.pdf
[87] Patrick, S., & Sturgis, C. (2011, July). Cracking the Code: Synchronizing Policy and Practice for Performance-Based Learning. Retrieved from http://www.inacol.org/resource/cracking-the-code-synchronizing-policy-and-practice-for-performance-based-learning/

Basing Credits on Demonstrations of Mastery

In July 2005, the New Hampshire State Board of Education adopted rule changes to Section Ed 306.27[88] to require high schools to base academic credit on demonstrations of mastery rather than seat time.[89] The new rule allowed school boards to award credit either based on seat time or demonstrations of mastery of the required course competencies from 2005 to 2008.

For the 2008-2009 school year and beyond, the state required local school boards to adopt policies for all students to earn high school credit by demonstrating mastery of required competencies for a course, as approved by certified school personnel.

The New Hampshire Department of Education's Supportive Role

Since then, the New Hampshire State Department of Education has taken on an increasingly active role in providing technical support to interested school districts. Working with the New Hampshire Association of School Principals (NHASP) and the Concord Area Center for Educational Support (CACES), the state provided technical assistance to local school districts for creating systems where credits are awarded on demonstrations of mastery.

New Hampshire's education leaders signed a resolution, along with Connecticut, Maine, Rhode Island and Vermont, supporting the New England Secondary School Consortium (NESSC), partnering with them to support local innovations in the design and implementation of high school redesign.[90]

Finally, the New Hampshire Department of Education created an in-depth vision document,[91] significant communications and explanatory resources,[92] and a course-level competencies validation rubric to improve the consistency and to maintain high levels of rigor in locally-adopted competencies across the state.[93]

Throughout this process the Department sought to respect local control. A technical advisory highlights the importance of local control:

> In emphasizing the need for flexibility and autonomy for local school districts in implementing competency assessment, the state has left local districts the responsibility for developing policies relative to...high school course competencies [and]...appropriate competency assessment methods.[94]

State-Level Competencies

Because of the emphasis on local control in the "Live Free or Die" state, New Hampshire did not pursue creating state-level competencies for voluntary use by school districts until years later.

In 2013, coordinating with educators from across the education spectrum along with the National Center for the Improvement of Educational Assessment and The Center for Collaborative Education, the Department

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[88] New Hampshire Department of Education. (2014). Minimum Standards for Public School Approval. Retrieved from http://education.nh.gov/legislation/documents/ed3062014-min-stands.pdf

[89] New Hampshire Department of Education. (2006, May 2). Technical Advisory #12: Competency Assessment of Student Mastery. Retrieved from http://education.nh.gov/standards/documents/advisory12.pdf

[90] New England Secondary School Consortium. (2015). Resolution in Support of the New England Secondary School Consortium Policy Framework. Retrieved from http://newenglandssc.org/wp-content/uploads/2015/10/NESSC_Policy_Framework_Resolution.pdf

[91] New Hampshire Department of Education. (2007). New Hampshire's Vision for Redesign: Moving from High Schools to Learning Communities. Retrieved from http://www.education.nh.gov/innovations/hs_redesign/documents/vision.pdf

[92] New Hampshire Department of Education. (2014). New Hampshire's Story of Transformation. Retrieved from http://www.education.nh.gov/transformation.htm

[93] New Hampshire Department of Education. (2010, Sept. 15). Competency Validation Rubric. Retrieved from http://education.nh.gov/innovations/hs_redesign/documents/validation_rubric_for_course-level-competencies.pdf

[94] New Hampshire Department of Education. (2006, May 2). Technical Advisory #12: Competency Assessment of Student Mastery. Retrieved from http://education.nh.gov/standards/documents/advisory12.pdf

developed state-level competencies. The state has approved competencies in mathematics, English language arts, science, art, and work-study practices.[95]

Moving Closer To Personalized Learning

Also in 2013, the New Hampshire Board of Education approved an update to the requirements for New Hampshire high schools (Ed 306.27), which solidified expectations for the state's high schools to provide personalized, competency-based learning environments.

These minimum standards require New Hampshire high schools to:

- Create and support extended learning opportunities outside of the physical school building and outside of the usual school day;
- Provide learning opportunities to enable students to achieve the district's graduation competencies aligned to the skills, knowledge and work-study practices required for success in college and careers; and
- Allow students to demonstrate achievement of additional competencies aligned to student interests in elective courses, career and technical education courses or extended learning opportunities.[96]

These updated minimum standards for New Hampshire high schools made expectations explicit that students should be able to access educational opportunities customized to their individualized needs and circumstances.

Assessments for Learning

New Hampshire is pioneering the Performance Assessment of Competency Education (PACE) pilot program, a first-in-the-nation accountability strategy, offering reduced levels of standardized testing together with locally-developed common performance assessments.[97]

PACE supports deeper learning, and the assessments are meant to be more integrated into students' day-to-day work than current standardized tests. PACE is an example of how a state can achieve comparability, validity, and reliability for an innovative assessment system with systems of multiple assessments.[98]

Beginning in 2012, all New Hampshire school districts were invited to participate in the pilot program. It required extensive training and local commitment to managing testing locally. In 2016, there were eight school districts participating in the PACE pilot program.

New Hampshire's transformation to a more competency-based system has helped New Hampshire schools to focus more deeply on student learning. The state is showing results and more students are actively engaged in their learning. The state's dropout rate was cut in half from 2.5% in 2008 to 1.26% in 2012, far below the national average dropout rate of 7%.[99]

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[95] New Hampshire Department of Education. (2014). State Model Competencies. Retrieved from http://education.nh.gov/innovations/hs_redesign/competencies.htm

[96] New Hampshire Department of Education. (2014). Minimum Standards for Public School Approval. Retrieved from http://education.nh.gov/legislation/documents/ed3062014-min-stands.pdf

[97] New Hampshire Department of Education. (2015). Performance Assessment of Competency Education (PACE). Retrieved from http://www.education.nh.gov/assessment-systems/pace.htm

[98] Peppler, J. A., Patrick, S. D., Marion, S., & Wilhoit, G. (2016, Jan. 21). Letter to U.S. Dept. of Education. Retrieved from http://www.inacol.org/wp-content/uploads/2016/01/Comment-Letter-for-US-Department-of-Education-on-ESSA-Request-for-Information-RFI.pdf

[99] New Hampshire Department of Education. (2014). New Hampshire: Our Story of Transformation. Retrieved from http://education.nh.gov/documents/nh-story.pdf

C. STATES TAKING A COMPREHENSIVE, STATEWIDE APPROACH

A comprehensive, statewide policy approach provides a coordinated system of policies and supports — rather than an incremental or piecemeal adoption of policies — to move all learners in a state towards personalized learning.

The following section highlights Vermont's comprehensive policy approach to personalized learning.

1. Vermont's Comprehensive Statewide Policy Approach

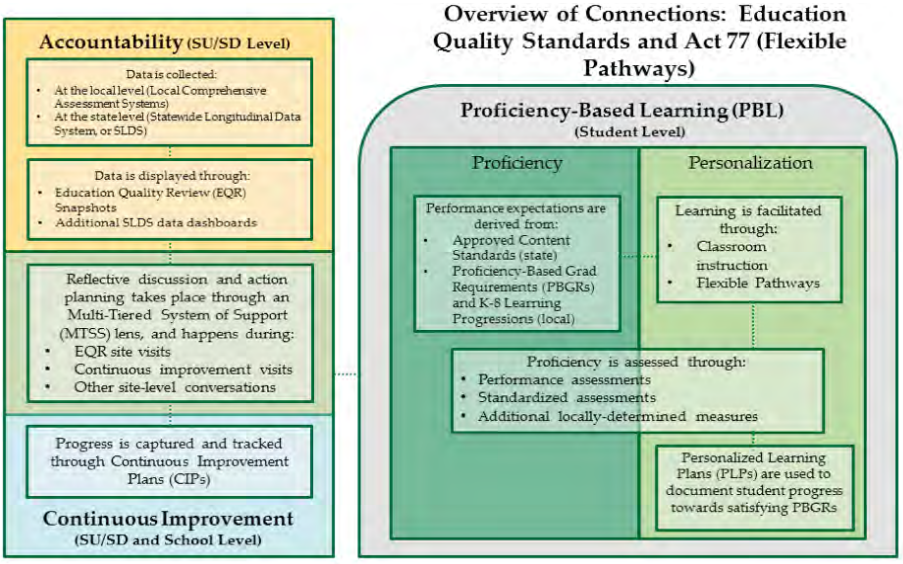
Vermont has pursued the most comprehensive statewide policy approach to personalized, proficiency-based learning, integrating multiple policies together into a coordinated system.

In 2013, the Vermont legislature passed Act 77, the Flexible Pathways Initiative,[100] and the Vermont State Board of Education approved Rule 2000: Education Quality Standards (EQS), which created the policy environment for personalized, proficiency-based learning to thrive in the state.[101]

Important elements within these policies include proficiency-based graduation requirements, personalized learning plans, systems of assessments for learning, accountability for continuous improvement, flexible pathways, and educator and school leader development initiatives.

The components of Vermont's comprehensive, statewide approach work together to improve educational options and results for students (see visual[102]):

- State standards and proficiency-based graduation requirements drive common, high expectations for students to ensure equity.
- Personalized learning plans are aligned to and measure students' progress towards the proficiency-based graduation requirements. They allow students to leverage the state's flexible pathways to create individualized, powerful learning experiences for students.
- Comprehensive systems of assessments, including performance-based assessments, determine student progress and supports along the way.



[100] Vermont Agency of Education. (2016, Jan. 25). Introduction to Act 77. Retrieved from http://education.vermont.gov/documents/edu-introduction-to-act-77.pdf
[101] Vermont Agency of Education. (2016, April 8). Education Quality Standards. Retrieved from http://education.vermont.gov/state-board/rules/2000
[102] Ibid.

In Vermont, learning is supported by significant state-level efforts to increase educator and school leader capacity. This creates a culture of continuous improvement that, over time, will forge a personalized learning system that dramatically improves opportunities and outcomes for students, preparing them for success in higher education, the modern workforce, and life.

Proficiency-Based Graduation Requirements

According to Vermont's Education Quality Standards (EQS):

> 'Proficiency-based learning' and 'proficiency-based graduation' refer to systems of instruction, assessment, grading and academic reporting that are based on students demonstrating mastery of the knowledge and skills they are expected to learn before they progress to the next lesson, get promoted to the next grade level, or receive a diploma.[103]

Vermont's schools are required to have proficiency-based graduation requirements for the graduating class of 2020 and beyond.[104] Local school districts are adopting their own specific graduation requirements but must adhere to state standards in specified curriculum areas.

The Vermont Agency of Education (AOE) has created sample graduation proficiencies and performance indicators.[105] In collaboration with Vermont educators and the Great Schools Partnership, AOE has developed a significant body of resources for districts to use as they develop and implement the new graduation requirements and create student-centered learning environments.[106]

Personalized Learning Plans

Both Act 77 and Vermont's EQS require schools to ensure all students in grades 7-12 have a Personalized Learning Plan.[107]

The legislation requires school districts to create a personalized plan that identifies a student's emerging abilities, aptitudes, and dispositions that guides decisions regarding course offerings and other educational experiences.[108]

In addition, the EQS makes explicit that schools meaningfully incorporate personalized learning plans into the instructional process. Schools must "provide…academic and experiential learning experiences that reflect [students'] emerging abilities, interests and aspirations." Finally, all students receive tiered systems of academic and behavioral supports to help them attain state standards.[109]

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[103] Vermont State Board of Education. (2014, April 5). Education Quality Standards: State Board Rule 2000. Retrieved from http://education.vermont.gov/documents/EDU-FinalEQS_AsAdopted.pdf
[104] Vermont Agency of Education. (n.d.). Proficiency-Based Graduation Requirements. Retrieved from http://education.vermont.gov/pbgr
[105] Vermont Agency of Education. (n.d.). Proficiency-Based Graduation Requirements: Sample…Indicators. Retrieved from http://education.vermont.gov/pbgr/sample-pbgr
[106] Vermont Agency of Education. (n.d.). Proficiency-Based Learning. Retrieved from http://education.vermont.gov/proficiency-based-learning
[107] Vermont Agency of Education. (n.d.). Personalized Learning Plans (PLPs). Retrieved from http://education.vermont.gov/plp-working-group/main
[108] Vermont Legislature. (2014). No. 77. An act relating to encouraging flexible pathways to secondary school completion. Retrieved from http://www.leg.state.vt.us/docs/2014/Acts/ACT077.pdf
[109] Vermont State Board of Education. (2014, April 5). Education Quality Standards: State Board Rule 2000. Retrieved from http://education.vermont.gov/documents/EDU-FinalEQS_AsAdopted.pdf

Rethinking Systems of Assessments

The Vermont Education Quality Standards direct school districts to implement a local, comprehensive assessment system that (1) includes teacher- or student-designed assessments, portfolios, performances, exhibitions and projects, (2) includes formative and summative assessments, and (3) enables decisions to be made about student progression and graduation.

The performance criteria for these assessment systems must be clear and communicated to educators, students, parents, and other community members.

Accountability and Continuous Improvement

In 2014, Vermont's Secretary of Education sent a letter to parents outlining the Vermont AOE's philosophy on accountability and its commitment to continuous improvement.[110]

The Vermont Education Quality Standards outline the state's structure to report on and implement processes of continuous improvement.

On a two-year cycle, each school is required to submit a continuous improvement plan that outlines the school's accomplishments, progress, goals, and strategies for improvement. All continuous improvement plans are reviewed by AOE staff, with assistance from Vermont educators in a peer-review process, and feedback is provided back to the schools.[111]

Flexible Pathways

Flexible pathways to graduation, to higher education, and to meaningful careers was a key focus of Vermont's Act 77. The following summarizes three of the critical pathways for Vermont students:

- Dual enrollment – Vermont high school juniors and seniors are eligible to take up to two dual enrollment courses.[112]
- Early College Program – Vermont colleges and universities can develop an early admission program that allows high school seniors to take a full year of college-level classes while completing their high school degrees. Funding is equal to 87% of a student's base education funding, which postsecondary institutions accept in lieu of tuition. Currently, six Vermont institutions of higher education provide Early College programs.[113]
- Work-Based Study – The AOE states that "work-based learning experiences [are]...relevant, rigorous, challenging, and rewarding for students, parents, educators, and businesses. These opportunities particularly help students make the connection between academic principles and real world applications."[114] One way Vermont is expanding work-based learning is the Vermont Standards Board

[110] Vermont Agency of Education. (2014, Aug. 6). Vermont's Commitment to Continuous Improvement [Memo]. Retrieved from http://education.vermont.gov/documents/EDU-Letter_to_parents_and_caregivers_AOE_8_8_14.pdf
[111] Vermont State Board of Education. (2014, April 5). Education Quality Standards: State Board Rule 2000. Retrieved from http://education.vermont.gov/documents/EDU-FinalEQS_AsAdopted.pdf
[112] Vermont Agency of Education. (2014, Jan. 22). Flexible Pathways: Dual Enrollment. Retrieved from http://education.vermont.gov/flexible-pathways/dual-enrollment
[113] Vermont Agency of Education. (2016, April 20). Flexible Pathways: Early College. Retrieved from http://education.vermont.gov/flexible-pathways/early-college
[114] Vermont Agency of Education. (2016, Feb. 12). Flexible Pathways: Work-based Learning. Retrieved from http://education.vermont.gov/work-based-learning

for Professional Educators has recently revised the Work-Based Learning Coordinator endorsement to increase students' participation in work-based learning.[115]

Educator and School Leader Development

Vermont policies provide educators with the necessary training, professional development, time, and support to effectively implement personalized learning.

In 2013, the Vermont Standards Board for Professional Educators issued Revised Core Teaching and Leadership Standards for Vermont Educators. The new standards call for:

- Personalized learning for diverse learners;
- A stronger focus on application of knowledge and skills;
- Improved assessment literacy;
- A collaborative professional culture; and
- New leadership roles for teachers and administrators.[116]

The Vermont Education Quality Standards require school districts to create professional learning groups for all teachers that are facilitated by trained teachers to meet for at least two hours per month. Vermont school districts must also develop and implement systems of appropriate needs-based professional learning and mentoring for all professional staff.[117]

In 2014, the Vermont AOE devoted resources for Vermont school districts to participate in a series of professional development seminars on a systemic approach to proficiency-based learning. These monthly seminars ran from December 2014 through June 2015 and provided school districts with guidance, technical assistance, professional development, consultations, and planning time to create action plans for implementing personalized, proficiency-based learning in their systems.[118] The Great Schools Partnership[119] ran the seminars and approximately half of Vermont's school districts participated in the series.[120]

Vermont's comprehensive policy approach sets the stage for its schools to dramatically transform education into a student-centered system. Since these policies were passed in 2013, school districts are just beginning to implement them. Educator and school leader capacity will be essential to ensuring these policies help all Vermont students pursue their interests and passions and graduate prepared to succeed in college, in the workplace, and in life.

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[115] Vermont Agency of Education. (2016, Feb. 8). Revisions to the Work-Based Learning Coordinator Endorsement [Memo]. Retrieved from http://education.vermont.gov/documents/edu-memo-work-based-learning-coordinator-endorsement.pdf

[116] Vermont Agency of Education. (2013, June 26). A Vision for Teaching, Leading, and Learning: Core Teaching and Leadership Standards for Vermont Educators. Retrieved from http://education.vermont.gov/documents/EDU-Licensing_Vision_for_Teaching_Leading_and_Learning.pdf

[117] Vermont State Board of Education. (2014, April 5). Education Quality Standards: State Board Rule 2000. Retrieved from http://education.vermont.gov/documents/EDU-FinalEQS_AsAdopted.pdf

[118] Vermont Agency of Education. (2014, April 5) [Memo]. Retrieved from http://education.vermont.gov/documents/EDU-MEMO_VT_PBL_RFP_10_2014.pdf

[119] Great Schools Partnership. (n.d.). Vermont Seminar Series. Retrieved from http://www.greatschoolspartnership.org/presentations/vermont-seminar-series/

[120] Kostin, M. (D. Frost, personal communication, May 13, 2016).

D. FUTURE ISSUES

State policy leaders have an opportunity to redesign the K-12 system around learning and continuous improvement. There is an incredible window of opportunity for state policymakers with the passage of the Every Student Succeeds Act (ESSA). States now have the flexibility to engage in conversations with local communities to reimagine the future of education and redefine what student success looks like.[121]

What do we want our students to know and be able to do in the 21st century?

How can we rethink preparation programs to ensure our educators have the skills and competencies for next generation learning models?[122]

How do we create policy alignment and support for student-centered learning?

Student-centered, personalized learning requires assessments for learning that are meaningful to students and educators alike in providing real-time feedback on a student's progress toward mastery of learning goals. Educator capacity to assess evidence of student work for demonstrating knowledge, skills, and competency is key to competency-based pathways. Summative assessments now can be broken into smaller units and offered as interim assessments to validate student learning and provide a quality control. Combinations of performance assessments, computer adaptive testing, formative assessments, and these interim assessments will help frame new systems of assessments to support building capacity in sync with educators' and students' needs.

Here are the areas state policymakers need to begin addressing:

- Creating forward-thinking accountability systems aligned to student-centered learning that focus on a better balance of indicators for supporting continuous improvement;
- Establishing new systems of assessments, with multiple measures, designed to support competency-based learning;
- Redesigning teacher and school leader professional development and preparation to prepare them to take on new roles to effectively deliver personalized learning; and
- Aligning educator standards and competencies, in collaboration with higher education and licensing and certification stakeholders, to the skills and professional responsibilities needed in personalized, competency-based learning environments.

With ESSA's passage, states and localities are rethinking how accountability can ensure quality, equity, and excellence — and examining how systems of assessments will support continuous improvement. This includes a new role for states to build capacity and create space for innovation through more student-centered aligned accountability with multiple measures and exploring new designs for certification and licensure through different models of teacher preparation (such as with stacked micro-credentials) to equip the next generation of educators.

[121] U.S. House of Representatives Document Repository. (2015, Nov. 30). Every Student Succeeds Act. Retrieved from http://docs.house.gov/billsthisweek/20151130/CRPT-114HRPT-S1177.pdf

[122] Powell, A., Rabbitt, B., & Kennedy, K. (2014, Oct.). iNACOL Blended Learning Teacher Competency Framework. Retrieved from http://www.inacol.org/resource/inacol-blended-learning-teacher-competency-framework/

Accountability

A forward-thinking accountability system should align state accountability to student-centered learning to support success for each and every student.[123]

Old accountability models from No Child Left Behind (NCLB) reflect an era of data poverty that measured student proficiency on a single end-of-year test. That "autopsy" approach to testing for accountability purposes does not support student-centered learning, nor does it support continuous improvement.

The goal of NCLB — to shine a light on student achievement with transparent data on proficiency, disaggregated by demographic subgroups — was critically important. There is a "third way" to design accountability systems that can be more meaningful to students, parents, educators, and school leaders. Rather than using limited, time-bound metrics of student achievement, policymakers can design next generation accountability systems with real-time data to better identify the schools and students who need more supports to be successful.

Educators and students are interested in knowing where they are on the continuum of learning toward reaching their learning goals and graduating. Thus, students, parents and educators need data to help manage meeting each student's unique needs in personalized learning environments.

Next generation accountability models will utilize multiple measures and indicators of student progress to support continuous improvement throughout the year. Data will be relevant to inform instruction and differentiate instruction for improving student outcomes on the knowledge, skills, and dispositions that matter most for future success. Communities and local schools are redefining what success looks like for the whole child and designing next generation accountability to support their vision, values, and goals of a new era of K-12 education reimagined.[124]

Opportunity to Design for Continuous Improvement

ESSA provides an opportunity to design new accountability models to ensure equity by focusing on a better balance of indicators for supporting continuous improvement, such as:

- Addressing that all students are on track for graduation;
- Closing achievement gaps by serving vulnerable students;
- Analyzing effectiveness based on the amount of learning per unit of time; and
- Better determining cost effectiveness for amount of learning per unit of time (with time-bound targets).

Multiple measures in new accountability systems require at least three academic indicators: proficiency, growth, and graduation rates; and at least one indicator of non-academic factors such as school climate, access to educational opportunity, access to AP courses, and parent and student satisfaction surveys.

[123] Patrick, S. (2013, Dec. 4). Aligning State Accountability as a Driver of Student-Centered Learning. Retrieved from http://www.inacol.org/news/aligning-state-accountability-as-a-driver-of-student-centered-learning/

[124] Convergence Center for Policy Resolution. (2015). Education Reimagined. Retrieved from http://www.convergencepolicy.org/latest-projects/k-12-education-reform/

Accountability should drive continuous improvement of student learning with the goal of:

- Achieving equity and college and career readiness for all students;
- Motivating educators to meet individual student learning needs in real time; and
- Extending beyond single-point-in-time proficiency rates on a single test score.

Before the passage of ESSA, the federal accountability requirements were out of alignment with personalized, competency-based models. NCLB had a narrow focus on single-point-in-time academic proficiency, rather than on student academic growth toward deeper learning outcomes. With the passage of ESSA, states will now have flexibility to redesign systems of assessments for student-centered learning that can be used for federal accountability purposes. Assessments should be meaningful for both students and educators in determining what learning goals have been met with proficiency and mastery and what's next on a student's learning pathway.

Next generation accountability systems should provide greater transparency on multiple measures and support student learning.[125] They should celebrate growth, calculate how quickly the achievement gap is being closed, and show in real time where students, subgroups of students, and schools need supports and interventions. Accountability should align with helping to meet the greatest needs of vulnerable students by pinpointing the resources needed to ensure student success.

ESSA charges states with the responsibility of designing new accountability models for schools that are focused on continuous improvement. ESSA uses language, outlining the importance of improved academic achievement towards college and career readiness. The focus on continuous improvement is meant to catalyze rapid closure of achievement gaps between student subgroups and provide the flexibility for local leaders to align with and support addressing student needs.

Assessments

A growing number of states are considering new systems of assessments with multiple types of assessments designed to support competency-based progressions.[126] If students are advancing upon mastery, assessments should be open to students whenever they are ready. Under NCLB, all students were required to take the same test at the same time as the rest of their age-based cohort. Under ESSA, the needed flexibility and supports are in place to systematically change the notion of what assessments ought to be, and when they ought to be taken, to better support assessments for learning.[127]

The iNACOL Federal Policy Frameworks 2015 urged Congress to make changes to ESEA to redesign assessments around student-centered learning.[128] We were pleased to see all of iNACOL's recommendations incorporated into ESSA. These recommendations included:

[125] CompetencyWorks. (2015). What Is Competency Education? Retrieved from http://www.inacol.org/wp-content/uploads/2015/02/CWorks-Aligning-Federal-Policy.pdf

[126] Fisher, J. F. (2015, March 5). New Hampshire Testing Pilot Breaks the Federal Accountability Mold. Retrieved from http://www.competencyworks.org/policy/new-hampshire-testing-pilot-breaks-the-federal-accountability-mold/

[127] Next Generation Learning Challenges. (2016). Assessment for Learning Project. Retrieved from http://nextgenlearning.org/assessment-learning-project

[128] Worthen, M. (2015, Nov.). The iNACOL Federal Policy Frameworks 2015. Retrieved from http://www.inacol.org/resource/inacol-federal-policy-frameworks-2015/

- ESEA should allow all state assessment systems to:
  - Measure individual student growth;
  - Use multiple measures of student learning from multiple points in time to determine summative scores [annual determination]; and
  - Use adaptive assessments that can measure students where they are in their learning.
- ESEA should establish an Innovative Assessment Pilot to allow states to apply for permission to develop rigorous assessment systems that better align with student-centered, competency-based learning models[129] (for example, New Hampshire's Performance Assessment for Competency Education).[130]

With these policies in place, the federal barriers have been removed, and states can redesign assessments for student-centered learning.

Next Generation Educator and Leader Workforce

A highly trained and engaged educator workforce will be the single most important driver of a successful personalized, competency-based education system. Educators and leaders will take on new roles as they work individually and collectively to design customized pathways to graduation for every student. Many will require new skills to adapt instruction for students with varying levels of competency and interests. This will require significant changes to pre-service preparation, professional development, and evaluation frameworks to ensure educators have the support and resources to make this transition.

Until recently, federal teacher requirements focused almost exclusively on input-based requirements like the now-defunct Highly Qualified Teacher (HQT). HQT provisions were repealed with the passage of the Every Student Succeeds Act (ESSA) — an important first step. It will be up to the states to lead the critical next step: shifting the focus to educator competencies as the basis for credentialing on demonstrated outcomes, rather than on time-based inputs.

A new program in ESSA enables flexibility to implement new teacher and leader preparation program models. This provision calls for the creation of teacher and principal "academies" with provisions such as:

- Rigorous selection in admissions to get the best and brightest into the schools where they are needed most;
- Emphasis on clinical instruction in preparing teacher and principal candidates;
- Graduation tied to improving student academic achievement; and
- Programs that fail to produce great teachers or principals will be not be reauthorized.[131]

According to EdWeek, the idea behind these programs is "academies will be free from burdensome, input-based regulations that are unrelated to student achievement."[132]

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[129] Fisher, J. F. (2014, Oct. 7). Considering competency-based education? Reconsider how you assess. Retrieved from http://www.christenseninstitute.org/considering-competency-based-education-reconsider-how-you-assess/

[130] Fisher, J. F. (2015, March 5). New Hampshire Testing Pilot Breaks the Federal Accountability Mold. Retrieved from http://www.competencyworks.org/policy/new-hampshire-testing-pilot-breaks-the-federal-accountability-mold/

[131] Congress.gov. (2013, July 8). H.R.2196 – GREAT Teachers and Principals Act. Retrieved from https://www.congress.gov/bill/113th-congress/house-bill/2196/text

[132] Bennet, M. F., Alexander, L., & Mikulski, B. (n.d.). Great Teachers and Principals Act. Retrieved from http://www.edweek.org/media/greatactbackground-blog.pdf

Professional learning for educators in the future will also model competency-based learning environments with demonstrated performance and outcomes, and teachers will also experience powerful, personalized learning experiences generating evidence of success with exhibitions and e-portfolios.[133]

Enabling and Scaling the Use of Micro-Credentials

With ESSA's new flexibility, state policy can change to support teachers earning micro-credentials, stacking together competency-based credentials earned through personalized learning experiences that focus on developing important skills with the evidence through projects and work products of mastery of the required competencies.[134] These could form the basis of new competency-based teacher credentials and licenses — creating pre-service and in-service competency-based pathways for adults in K-12 education as well as students.

Digital Promise, whose mission is to "accelerate innovation in education to improve opportunities to learn," has developed a framework to ensure micro-credentials:

- Focus on a single competency;
- Have a key method backed by research;
- Require the submission of evidence; and
- Include a rubric or scoring guide.[135]

The MacArthur Foundation defines digital badges — a type of microcredential — as "an assessment and credentialing mechanism that is housed and managed online. Badges are designed to make visible and validate learning in both formal and informal settings, and hold the potential to help transform where and how learning is valued."[136] The Foundation supports Mozilla Open Badges which allows any organization to create, issue, and verify digital badges.

Micro-Credentialing Educators in Kettle Moraine, Wisconsin

Wisconsin's Kettle Moraine School District has successfully utilized micro-credentials to improve staff capacity to implement innovative learning models. The district incorporated micro-credentials in its professional development and compensation systems. Educators can choose from the micro-credentials offered through Digital Promise, others offered by the district, or suggest ones of their own making. Over 50 percent of Kettle Moraine's teachers have earned at least one micro-credential.[137]

A few leading states are starting to explore ways to effectively utilize micro-credentials.

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[133] Cator, K., Schneider, C., & Vander Ark, T. (2014, May 1). Preparing Teachers for Deeper Learning. Retrieved from http://gettingsmart.com/publication/preparing-teachers-deeper-learning/
[134] Center for Teaching Quality. (2016). Micro-credentials: Driving teacher learning & leadership. Retrieved from http://www.teachingquality.org/microcredentials
[135] Digital Promise. (n.d.). Educator Micro-credentials. Retrieved from http://digitalpromise.org/initiative/educator-micro-credentials/
[136] MacArthur Foundation. (2016). Digital Badges. Retrieved from https://www.macfound.org/programs/digital-badges/
[137] Digital Promise. (2016, March 16). Transforming the Classroom with Micro-credentials. Retrieved from http://digitalpromise.org/2016/03/16/transforming-the-classroom-with-micro-credentials/

New Hampshire

The New Hampshire Department of Education, in Vision 2.0, plans to develop a system of micro-credentials "to promote personalized, on-demand professional learning across the state."[138] Their goal is to achieve 10% growth per year in attainment of micro-credentials.

Colorado

Colorado Commissioner of Education Rich Crandall recently indicated that his agency is looking for partnerships in this area to develop and roll out a system of targeted micro-credentials so that teachers can develop specific skills to succeed in innovative learning models.[139]

New competency-based talent and leadership development pathways are necessary to help build strong pipelines of bold, visionary and capable school and district leaders to catalyze the transformation to next generation learning.

States, districts, and schools can work together to create next generation micro-credentials to redesign teacher preparation for the 21st century. As innovative systems of assessments emerge, micro-credentials for calibrating and strengthening professional judgements on performance assessments will be a critical next step in modernizing educator leadership skills.

States now have all of the flexibility they need with the elimination of the highly qualified teacher provision from ESEA. It is time for districts to demand the creation of new models and for states to focus on competency-based pathways for credentialing and licensing adults in the K-12 education workforce.

Alignment with Higher Education

Transformation of the education workforce must begin with development of educator standards and competencies that align to a state's academic standards and competencies, and which reflect the skills and professional responsibilities educators will need as they transition to competency-based instruction. States should engage a wide range of stakeholders in this conversation, including representatives from pre-service preparation programs and state educational agencies, teacher licensure boards, and educators and leaders from the K-12 system.

A next generation education system will align pre-service and credentialing programs to ensure educators can succeed in competency-based learning environments through the following:

- Pre-service programs and credentialing requirements should align to instructional competencies that will ensure educators have the knowledge and skills to help all students excel in a competency-based system;
- Accreditation of teacher preparation programs should be aligned to instructional competencies which educator candidates earn based on mastery, not seat time;

[138] New Hampshire Department of Education. (2015, Fall). NH Vision 2.0: New Hampshire Goes First – A Blueprint to Scale Competency-based Education across a PreK-20 System. Retrieved from http://education.nh.gov/documents/nh-vision.pdf
[139] Frost, D. (2016, April 1). Colorado Commissioner Rich Crandall on Bringing Personalized Learning Mainstream. Retrieved from http://www.inacol.org/news/colorado-commissioner-rich-crandall-on-bringing-personalized-learning-mainstream/

- Educator preparation programs should provide candidates with multiple pathways to completion, which ensure mastery of the full-range of instructional competencies; and
- Educator candidates should have the opportunity to follow multiple pathways to attaining competency-based credentials and licensure.[140]

High-quality and effective educators are the most important factor in the success of students. The success and sustainability of education reforms requires educator buy-in and capacity.

In the shift towards competency education in K-12 schools, changes to accountability, assessment, data, research, and funding systems will create many of the conditions necessary for lasting improvements. However, policymakers at the federal and state levels must ensure that integrated systems of support — from pre-service through credentialing, professional development, and evaluation — are in place to engage and adequately prepare the educator workforce. Our educators deserve personalized pathways to support and effectively lead the transformation of the K-12 system to competency education.

III. Conclusion

Individual districts and schools can make incremental shifts to personalized learning without state supports and policy flexibility. However, the promising policies this report highlights will help states remove barriers and liberate educators to focus on student learning. The shift to personalized learning is about closing gaps for all learners and increasing equity in the K-12 education system. A thoughtful, well-designed approach that uses several of these promising policies will help to create the right conditions for personalized learning to scale.

The vision of personalized education is that every student will have increased educational opportunities and meaningful and highly-engaging learning experiences — with the right mix of instructional supports precisely when students need them — so each student is successful. Failure is not an option; it's just part of the learning process.

As high-quality personalized learning spreads, students will experience life-changing learning opportunities that prepare them to succeed in higher education, flourish in a 21st century workplace, and participate effectively as citizens. Moving beyond incremental change to whole-system transformation is not only important; it's possible and essential.

[140] Pace, L., & Worthen, M. (2014, Oct.). Laying the Foundation for Competency Education: A Policy Guide for the Next Generation Educator Workforce. Retrieved from http://www.inacol.org/resource/laying-the-foundation-for-competency-education-a-policy-guide-for-the-next-generation-educator-workforce/

Key Resources

EXPLAINING AND DEFINING TERMS

- iNACOL–Mean What You Say: Defining and Integrating Personalized, Blended and Competency Education: http://www.inacol.org/resource/mean-what-you-say-defining-and-integrating-personalized-blended-and-competency-education/
- iNACOL–What Is Blended Learning? http://www.inacol.org/news/what-is-blended-learning/
- iNACOL–What Is Competency Education? http://www.inacol.org/news/what-is-competency-education/
- iNACOL–What Is Personalized Learning? http://www.inacol.org/news/what-is-personalized-learning/

IMPLEMENTING COMPETENCY EDUCATION

- Alliance for Excellent Education–Strengthening High School Teaching and Learning in New Hampshire's Competency-Based System: http://all4ed.org/reports-factsheets/strengthening-high-school-teaching-and-learning-in-new-hampshires-competency-based-system/
- CompetencyWorks: http://www.competencyworks.org/
- CompetencyWorks–Clearing the Path: Creating Innovation Space for Serving Over-Age, Under-Credited Students in Competency-Based Pathways: http://www.inacol.org/resource/clearing-the-path-creating-innovation-space-for-serving-over-age-under-credited-students-in-competency-based-pathways/
- CompetencyWorks–Getting Started and Scaling Competency-Based Education: http://www.competencyworks.org/understanding-competency-education/getting-started-and-scaling-competency-based-education/
- CompetencyWorks–Implementing Competency Education in K-12 Systems: Insights from Local Leaders: http://www.inacol.org/resource/implementing-competency-education-in-k-12-systems-insights-from-local-leaders/
- CompetencyWorks–It's Not a Matter of Time: Highlights from the 2011 Competency-Based Summit: http://www.inacol.org/resource/its-not-a-matter-of-time-highlights-from-the-2011-competency-based-summit/
- CompetencyWorks–Maximizing Competency Education and Blended Learning: Insights from Experts: http://www.inacol.org/resource/maximizing-competency-education-and-blended-learning-insights-from-experts/
- CompetencyWorks–Update from Iowa: http://www.competencyworks.org/policy/update-from-iowa/
- CompetencyWorks–When Success Is the Only Option: Designing Competency-Based Pathways for Next Generation Learning: http://www.inacol.org/resource/when-success-is-the-only-option-designing-competency-based-pathways-for-next-generation-learning-2/

- iNACOL–Building District Capacity for Student-Centered Learning and Scaling Innovation in Arkansas: http://www.inacol.org/news/building-district-capacity-for-student-centered-learning-and-scaling-innovation-in-arkansas/
- Students at the Center–Resource Topics: http://www.studentsatthecenter.org/topics

POLICIES FOR EDUCATOR & SCHOOL LEADER DEVELOPMENT

- KnowledgeWorks and iNACOL–Laying the Foundation for Competency Education: A Policy Guide for the Next Generation Workforce: http://www.inacol.org/resource/laying-the-foundation-for-competency-education-a-policy-guide-for-the-next-generation-educator-workforce/
- iNACOL–Modernizing Educator and Leader Development for a Next Generation Workforce: http://www.inacol.org/news/modernizing-educator-leader-development-next-generation-workforce/
- iNACOL–Modernizing Educator and Leader Development for Student-Centered Learning: http://www.inacol.org/news/modernizing-educator-and-leader-development-for-student-centered-learning/

POLICIES FOR COMPETENCY EDUCATION

- American Youth Policy Forum–The Intersection of Afterschool and Competency-Based Education: http://www.aypf.org/resources/the-intersection-of-afterschool-and-competency-based-education/
- Christensen Institute–From Policy to Practice: How Competency-Based Education is Evolving in New Hampshire: http://www.christenseninstitute.org/publications/from-policy-to-practice/
- CompetencyWorks–Aligning K-12 State Policies with Competency Education: http://www.inacol.org/resource/aligning-k-12-state-policy-with-competency-education/
- CompetencyWorks–Charting the Future of Competency-Based Education Policy: http://www.competencyworks.org/insights-into-implementation/charting-the-future-of-competency-based-education-policy/
- CompetencyWorks–Cracking the Code: Synchronizing Policy and Practice for Performance-Based Learning: http://www.inacol.org/resource/cracking-the-code-synchronizing-policy-and-practice-for-performance-based-learning/
- CompetencyWorks–Iowa Competency-Based Task Force Releases Report: http://www.competencyworks.org/resources/iowa-competency-based-task-force-release-report/
- CompetencyWorks–Necessary for Success: A State Policy Maker's Guide to Competency-Based Education: http://www.inacol.org/resource/necessary-for-success-a-state-policymakers-guide-to-competency-education/
- CompetencyWorks–New Hampshire Rocks Competency Education Policy: http://www.competencyworks.org/resources/new-hampshire-rocks-competency-education-policy/
- Foundation for Excellence in Education–3 Smart State Approaches to Competency-Based Education: http://www.excelined.org/2015/12/30/3-smart-state-approaches-to-competency-based-education/

- iNACOL–Nine Ways States Can Create Competency-Based Education Systems: http://www.inacol.org/news/nine-ways-states-can-create-competency-based-education-systems/
- New Hampshire Department of Education–New Hampshire's Story of Transformation: http://education.nh.gov/documents/nh-story.pdf

POLICIES FOR PERSONALIZED LEARNING

- Christensen Institute–Advancing Personalized Learning with Purpose: http://www.christenseninstitute.org/advancing-personalized-learning-with-purpose/
- CompetencyWorks–Vermont Breakaway on Proficiency-Based Policy: http://www.competencyworks.org/resources/vermont-breakaway-on-proficiency-based-policy/
- iNACOL–iNACOL State Policy Frameworks 2015: 5 Critical Issues to Transform K-12 Education: http://www.inacol.org/resource/inacol-state-policy-frameworks-2015-5-critical-issues-transform-k-12-education/
- iNACOL–Innovation Zones: Creating Policy Flexibility for Personalized Learning: http://www.inacol.org/resource/innovation-zones-creating-policy-flexibility-for-personalized-learning/
- iNACOL–State Policy: Resources for Getting Started: http://www.inacol.org/news/state-policy-resources-for-getting-started/
- KnowledgeWorks–A State Policy Framework for Scaling Personalized Learning: http://www.knowledgeworks.org/state-policy-framework-scaling-personalized-learning

PROFICIENCY-BASED DIPLOMAS AND TRANSCRIPTS

- Achieve–Post-Secondary Support for Competency-Based High School Transcripts: Lessons from the Competency-Based Transcripts Postsecondary Convening: http://www.achieve.org/publications/postsecondary-support-cbp-transcripts-brief
- CompetencyWorks–Maine: At the Forefront of Proficiency-Based Learning: http://www.competencyworks.org/reflections/maine-at-the-forefront-of-proficiency-based-learning/
- CompetencyWorks–Re-Thinking Assets in Competency-Based Transcripts: http://www.competencyworks.org/k-12-higher-education/re-thinking-assets-in-competency-based-transcripts/
- CompetencyWorks–What Is It Going to Mean to Have a Proficiency-Based Diploma? http://www.competencyworks.org/reflections/what-is-it-going-to-mean-to-have-a-proficiency-based-diploma/
- Jobs for the Future–Harvard Education Letter: From Seat Time to Mastery: http://www.jff.org/blog/2015/05/18/harvard-education-letter-seat-time-mastery
- New England Secondary School Consortium–What Is a Proficiency-Based Diploma? http://www.aypf.org/wp-content/uploads/2013/10/NESSC-Leadership-Briefings-on-Proficiency.pdf

SYSTEMS OF ASSESSMENTS AND ACCOUNTABILITY

- iNACOL–Aligning State Accountability As a Driver of Student-Centered Learning: http://www.inacol.org/news/aligning-state-accountability-as-a-driver-of-student-centered-learning/
- iNACOL–iNACOL Submits Recommendations to ED in Open Comment Period for ESSA Request for Information: http://www.inacol.org/news/inacol-submits-recommendations-to-ed-in-open-comment-period-for-essa-request-for-information/
- iNACOL–Redesigning Assessments Around Student-Centered Learning in ESSA: http://www.inacol.org/news/redesigning-assessments-around-student-centered-learning-in-esea/
- iNACOL–Rethinking Accountability for Continuous Improvement of Next Generation Learning Models: http://www.inacol.org/news/rethinking-accountability-for-continuous-improvement-of-next-generation-learning-models/

Key Definitions

Blended learning includes one of several education programs that combine online learning with supervised "brick-and-mortar" classes to create an integrated learning experience, giving students some control over time, place, path and pace.

Competency-based learning is a system of education in which: 1) Students advance upon demonstrated mastery; 2) Competencies include explicit, measurable, transferable learning objectives that empower students; 3) Assessment is meaningful and a positive learning experience for students; 4) Students receive timely, differentiated support based on their individual learning needs; 5) Learning outcomes emphasize competencies that include application and creation of knowledge along with the development of important skills and dispositions.

Deeper learning is the ability to master core academic content, think critically and solve complex problems, communicate effectively, work collaboratively, learn how to learn, and develop academic mindsets.

Online learning is education in which instruction and content are delivered primarily via the Internet.

Personalized learning tailors learning to each student's strengths, needs and interests, including enabling student voice and choice in determining what, how, when and where the learning occurs—providing flexibility and supports to ensure mastery of the highest standards possible.

Student-centered learning means: 1) Learning is personalized; 2) Learning is competency-based; 3) Learning happens anytime, everywhere; 4) Students take ownership over their learning (e.g., student agency).

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