RODEL TEACHER COUNCIL
BLUEPRINT FOR PERSONALIZED LEARNING IN DELAWARE

RODEL
FOUNDATION
OF DELAWARE

WHY WE NEED PERSONALIZED LEARNING

With only eighty percent of Delaware students graduating from high school and more than half of Delawareans who enroll in Delaware public colleges requiring remedial coursework, it's clear that the current system does not work for all students. Furthermore, Delaware students lag behind their peers in other states, with persistent achievement gaps between ethnic groups and students from different socioeconomic backgrounds, mirroring national trends.

The world is changing faster than ever, and we need to be sure that our students are prepared for a rapidly changing environment once they leave school. Personalized learning and advancements in technology have the potential to empower students to take greater ownership over their learning and to empower teachers to personalize learning based on individual students' needs. Personalized learning models encourage all students to grow to their full potential and leave school prepared for meaningful futures.

DELAWARE FOUR-YEAR GRADUATION RATE

80% for the 2012-13 graduating class.

Source: Delaware Department of Education

DELAWARE COLLEGE READINESS

19% scored 1550 or higher on the SAT.

The statewide average for the 2013 graduating class is 1276. The College Board and Delaware Department of Education define college readiness as a composite score of 1550 on the SAT. The highest possible score is 2400. Delaware is one of three states in which all 11th graders take the SAT. Sources: The College Board, Delaware Department of Education
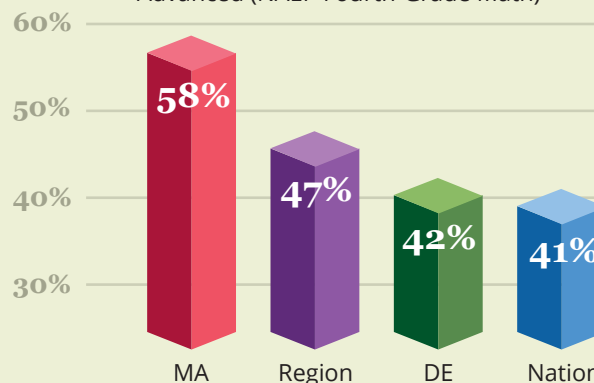
DELAWARE REMEDIATION RATES

53% of Delaware public high school graduates in the class of 2012 who enrolled in Delaware public colleges & universities were required to complete at least one remedial class in college.

Approximately 3,352 students (39% pf the state's public school graduates) in the class of 2012 enrolled in a Delaware public college or university. Source: Delaware Department of Education, Delaware Goes to College

DELAWARE STUDENTS DO NOT YET PERFORM AT THE LEVEL OF MANY OTHER U.S. STATES AS MEASURED BY THE RIGOROUS NAEP EXAM.

Source: National Center for Education Statistics, "The Nation's Report Card"

The National Assessment of Educational Progress, considered "The Nation's Report Card," is the largest nationally representative and continuing assessment of what America's students know and can do in various subject areas.

2013 Percentage of Students Proficient or Advanced (NAEP Fourth-Grade Math)

MA	Region	DE	Nation
58%	47%	42%	41%

2013 Percentage of Students Proficient or Advanced (NAEP Eighth-Grade Math)

MA	Region	Nation	DE
55%	42%	34%	33%
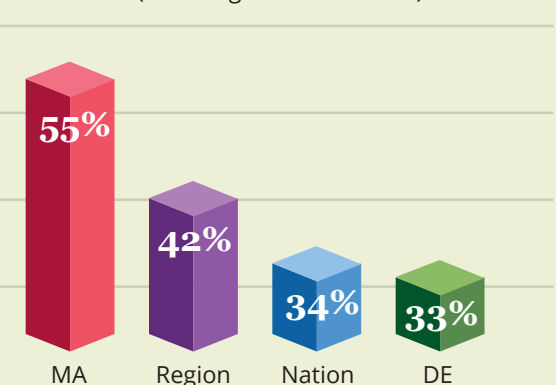
BLUEPRINT FOR PERSONALIZED LEARNING IN DELAWARE

The Rodel Teacher Council was established in September 2013 to elevate the voices of teachers throughout Delaware. As a council, our vision is that by 2020, Delaware will have a world-class system of education in which all students' instruction is tailored to their specific academic needs, personal interests, and distinct learning styles.

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ABOUT THE RODEL TEACHER COUNCIL

The Rodel Teacher Council is a group of teacher-leaders from across the state of Delaware. We're thinking bold, we're thinking big, and we're thinking about the next five years—looking at opportunities from the school, district, and state levels. We represent all three counties in the state (New Castle, Kent, and Sussex); we teach in traditional pre-K–12 schools, charter schools, and vocational schools. And we represent all core academic content areas and grade bands, special education, and early learning. See pages 24–25 for profiles of each Rodel Teacher Council member.

Back row, left to right: Kacie Versaci, Kathleen Olenderski, John Strong, Corryn Nikodemski, Paul Ramirez, Michelle Cotter Morton, Peter Demyan, Sharon Hardnett, Paul Herdman (CEO, Rodel Foundation of Delaware), Jennifer Hollstein, Tim Brewer, and Matt Korobkin (senior program officer, Rodel Foundation of Delaware); Front row, left to right: Michelle Wilson, Patricia Dallas, Michele Johnson, Jennifer Lougheed, Robyn Howton, and Melissa Tracy
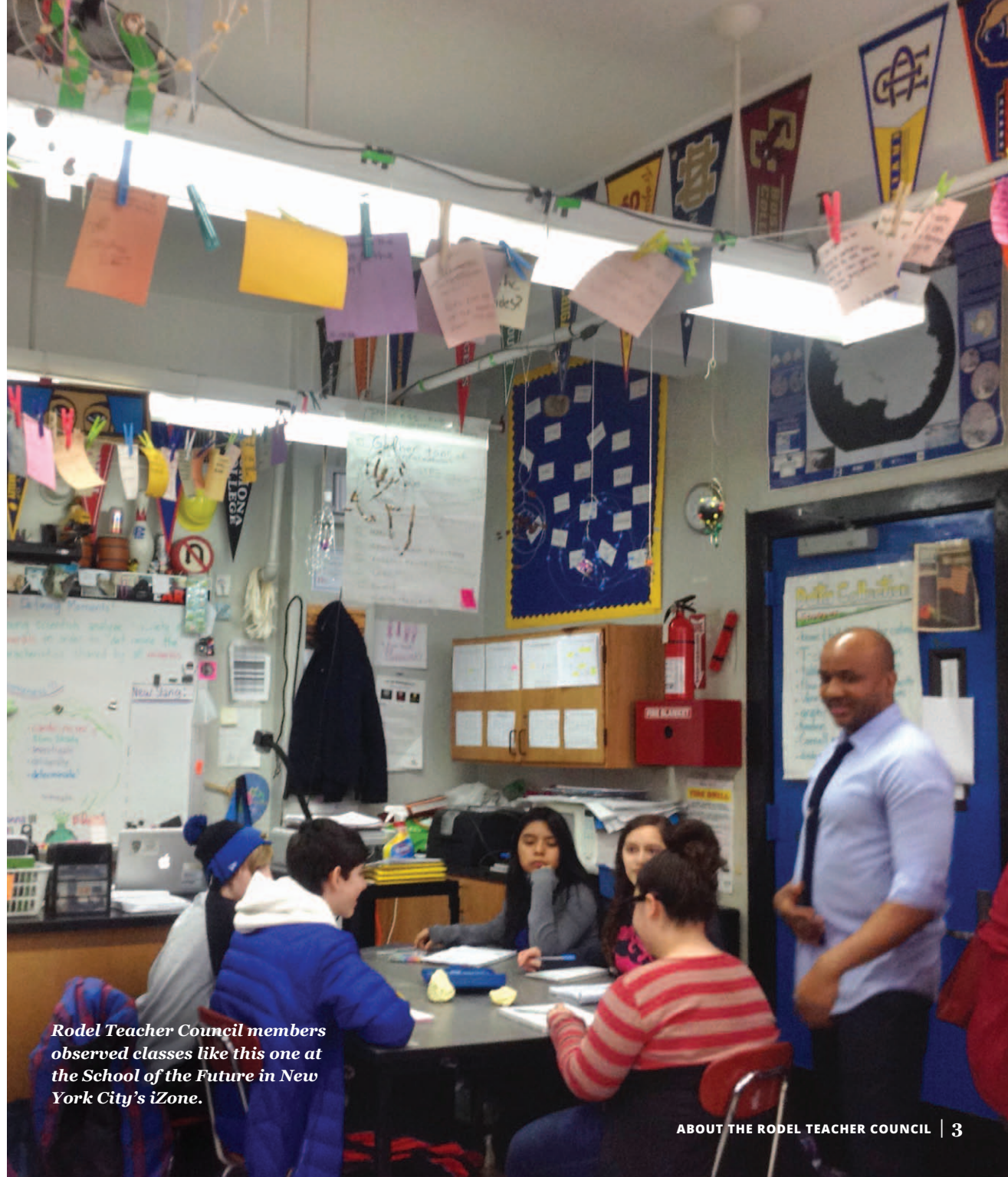
OUR PROCESS

This blueprint is the product of extensive, hands-on research. We met with education leaders—both locally and nationally—to understand what it would take to enable greater personalization in Delaware's education system. We sought to understand the educational context through our observations and interviews of students, fellow teachers, administrators, and policymakers. And, after surveying hundreds of Delaware teachers, one issue became startlingly clear:

> **Our state's educators see a clear need to change the way we presently prepare our students for college and careers by personalizing learning to help improve student outcomes, but there is not a clear consensus on how to make these changes.**

WHAT WE LEARNED

On a trip to three of New York City's Innovation Zone (iZone) schools, we observed innovative school models that have adopted personalized learning, and we learned that innovation and results can occur regardless of a school's ZIP code or student population. Some schools used a lot of technology, and some schools used less—but they all used technology in some capacity. We also learned that it can be done in a manner that is cost neutral in the long term, relative to the present model of instruction.

Rodel Teacher Council members observed classes like this one at the School of the Future in New York City's iZone.

OUR PROCESS: ENGAGING POLICYMAKERS AND OBSERVING INNOVATIVE SCHOOLS

Teacher Council members talk with school leaders at School of the Future in NYC.

Left to right, Delaware Secretary of Education Mark Murphy, Governor Jack Markell, Rodel Teacher Council Member Paul Ramirez, and Rodel Teacher Council Member Michele Johnson discuss personalized learning.

PERSONALIZED LEARNING AND THE TEACHER EXPERIENCE

PERSONALIZED LEARNING AND THE STUDENT EXPERIENCE

SYSTEMS TO SUPPORT PERSONALIZED LEARNING

THE RODEL TEACHER COUNCIL ORGANIZES OUR RECOMMENDATIONS AROUND THREE PERSPECTIVES:

1 **Personalized learning and the student experience (see page 8);**

2 **personalized learning and the teacher experience (see page 11); and**

3 **systems to support personalized learning (see page 18).**

In order to truly personalize learning, we must address each of these three perspectives, as they are all connected and intertwined. The recommendations that follow can each be attributed to these perspectives, and enacting them will create a system that will support teachers and students in the advancement of personalized learning. While we examined personalized learning through these three lenses, our ultimate interest is in student outcomes.

WHAT IS PERSONALIZED LEARNING?

Great teachers already know that students have different learning styles and learn at different paces—what works for one student does not necessarily work for the rest of the class. Personalized learning offers a new vision for education—one in which students become the center of the learning environment, and where students and teachers work together toward students' individual learning goals.
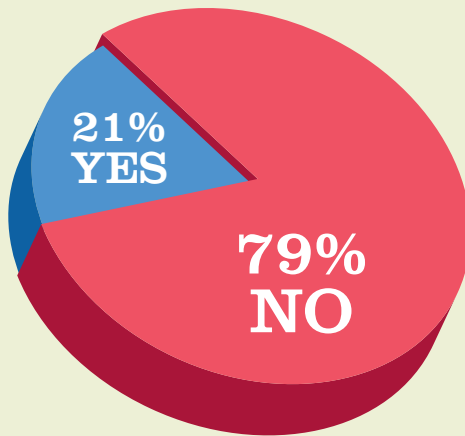
PERSONALIZED LEARNING SYSTEMS:

- **Tailor instruction to students' specific academic needs, personal interests, and learning styles, empowering them with ownership over their own work and progress.**

- **Enable students to learn at their own time, pace, place, and approach.**

- **Give students and teachers access to real-time feedback and performance data.**

- **Empower teachers to concentrate their time and energy on individual student needs.**

- **Use technology in rich and innovative ways to support student learning based upon the above elements.**

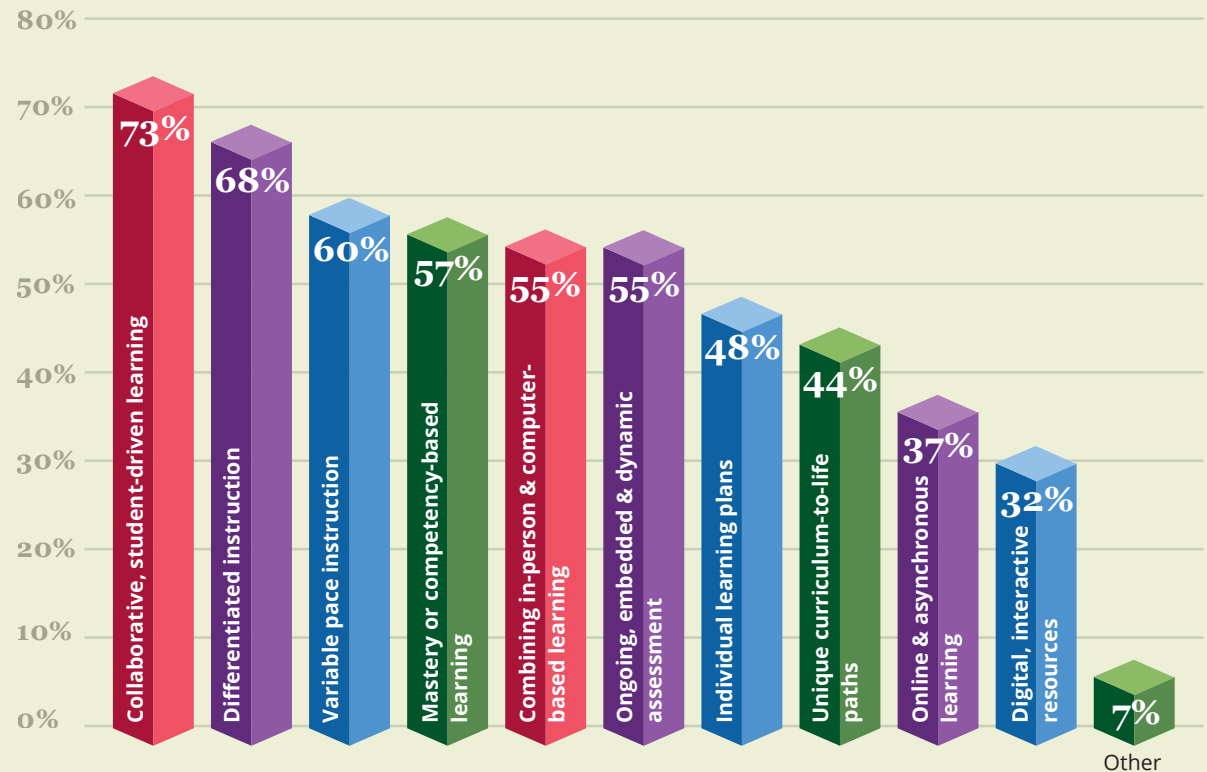## MOST DELAWARE TEACHERS ARE UNFAMILIAR WITH THE TERM "PERSONALIZED LEARNING."

Q: Are you familiar with the term "personalized learning," and do you incorporate it into your daily instructional practice?

21% YES

79% NO

The Rodel Teacher Council conducted a survey of more than 200 Delaware teachers in the spring of 2014, to help determine what Delaware teachers know or need to know about personalized learning. The survey will be referenced throughout this Blueprint as "2014 RTC Teacher Personalized Learning Survey."

BUT THE VAST MAJORITY OF TEACHERS AGREE THAT ASPECTS OF PERSONALIZED LEARNING WILL IMPROVE EDUCATION.

Q: Which instructional practices and learning conditions do you believe will lead to increased student learning for the majority of Delaware students? Check all that apply.

Practice	Percent
Collaborative, student-driven learning	73%
Differentiated instruction	68%
Variable pace instruction	60%
Mastery or competency-based learning	57%
Combining in-person & computer-based learning	55%
Ongoing, embedded & dynamic assessment	55%
Individual learning plans	48%
Unique curriculum-to-life paths	44%
Online & asynchronous learning	37%
Digital, interactive resources	32%
Other	7%

There is a discrepancy between what teachers believe will increase student learning and the aspects of personalized learning they incorporate into their classroom. For example, more than half (57%) of respondents believe that mastery or competency-based learning will lead to increased student learning. However, only 28% of teachers indicate that they implement it. This may be indicative of challenges or barriers to implementation, or the need for additional information and professional development.

THE PROMISE OF PERSONALIZED LEARNING FOR STUDENTS

DAVID IS A STUDENT about to start high school in Delaware. In middle school, his teachers passed him through each grade level even though he was not reading at grade level and had trouble understanding math concepts such as fractions. He has received additional support in the past few years to address these challenges, but he continues to struggle now that he is starting high school. Despite the best efforts of David and his teachers, he lacks the foundational skills to keep up with many of his peers. He is quickly becoming discouraged and unmotivated in school.

In the current system, students such as David who enter high school far behind their peers academically are at a particular risk of dropping out before graduating, or graduating unready to pursue higher education or a meaningful career. In many cases, these students have been passed on throughout their schooling even though they have not mastered the foundational skills needed for future classwork. Once they fall behind in understanding fractions, for example, it can be hard to keep up when students learn proportions or probability in future lessons.

A competency-based learning program could help students such as David, as well as benefit his classmates who are able to move more quickly through coursework. Competency-based learning ensures that students master specific skills and content before progressing to another unit or concept. For instance, some students may be able to demonstrate they understand and are able to use fractions within three days, while others might take a week or even two weeks to really understand the material and be able to demonstrate their understanding. With guidance and support from educators, competency-based learning would ensure that students advance to new material when they are ready, at their own pace, whether they can move quickly or whether they need more time. While technology is not necessary for successfully adopting a competency-based program, using technology with teacher supervision can help facilitate students' learning and assessment in a competency-based program.
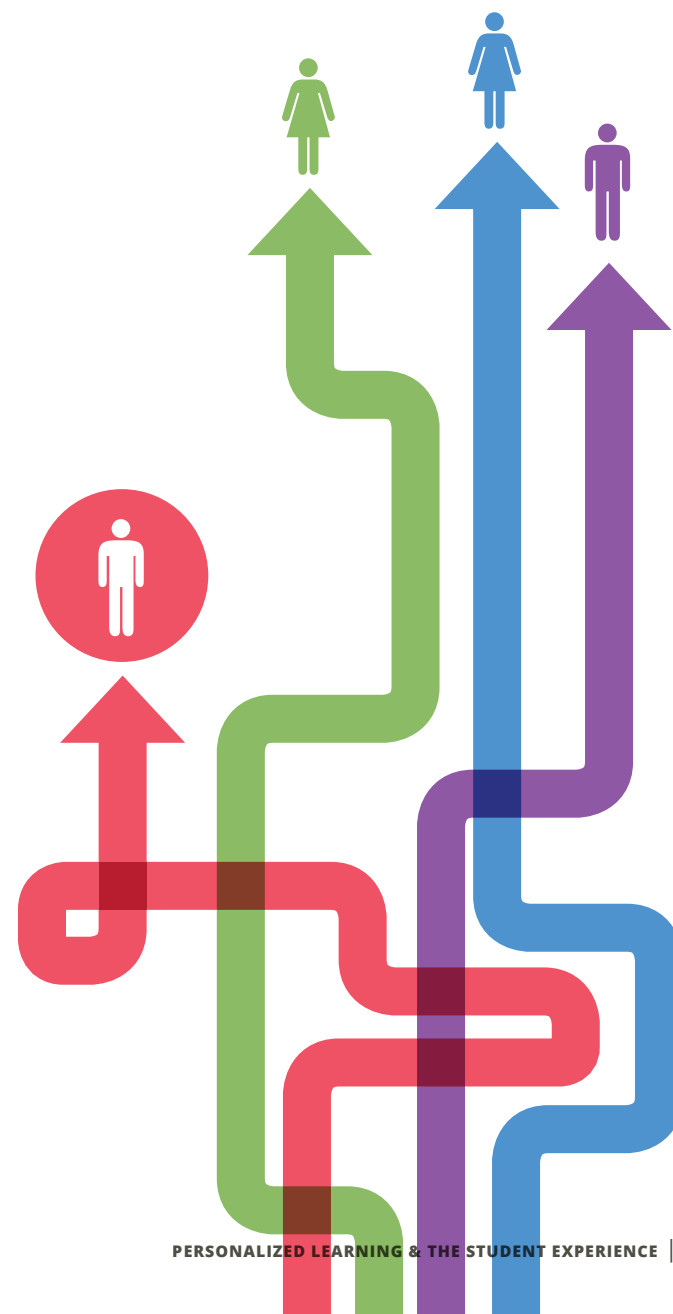
PERSONALIZED LEARNING AND THE STUDENT EXPERIENCE

In personalized learning environments, instruction must be tailored to students' specific academic needs, personal interests, and learning styles. It allows them to learn at their own time and pace, working on their studies whenever they want, at a rhythm that is most comfortable for them. Students get the flexibility to learn in places beyond the brick-and-mortar school and are empowered to learn through teachers, peers, technology, and real-world experiences. It's designed to improve the outcomes of all students, including those with disabilities, English learners, and students from economically disadvantaged backgrounds. Personalized systems have the potential to connect all students with highly effective teachers and specialized content to quickly address students' strengths and challenges.

START
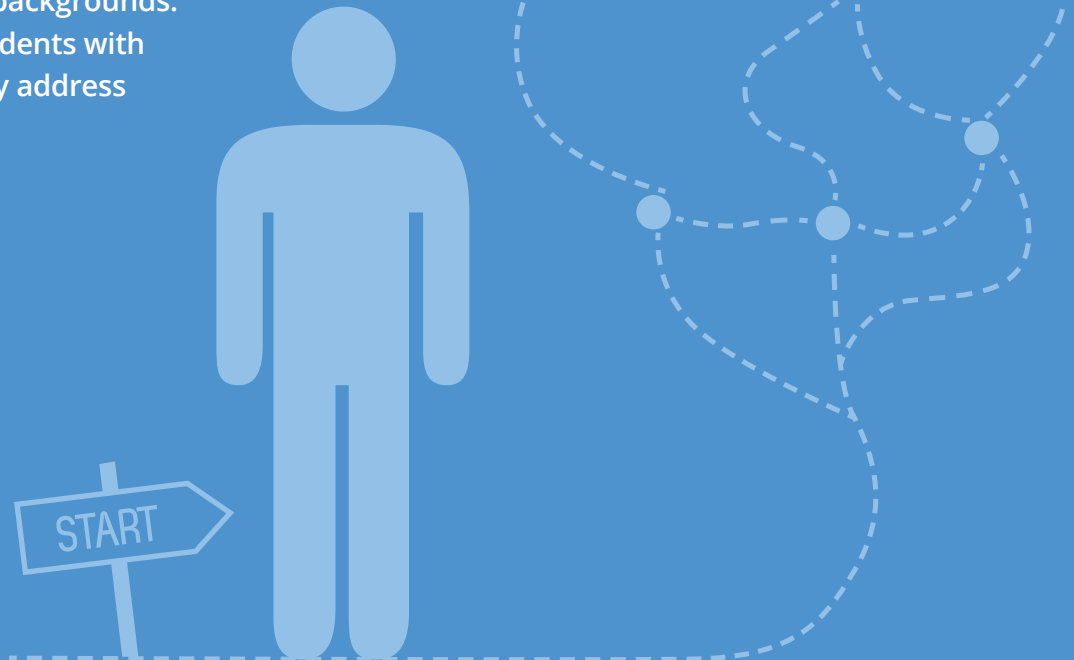
COMPETENCY-BASED LEARNING

Competency-based learning happens through the demonstration of a student's knowledge and skills, with students only able to move on to new content when results and evidence indicate they have mastered the content.

INSTEAD OF COUNTING THE NUMBER OF HOURS STUDENTS ARE IN THEIR SEATS, STUDENTS MOVE THROUGH COURSEWORK AND GRADUATE BASED ON THEIR ABILITY TO SHOW THEY HAVE MASTERED THE MATERIAL.

What are the challenges?

- Delaware's existing education regulations leave little flexibility for district or statewide adoption of competency-based learning models.

- There aren't any districts in Delaware that have embraced a competency-based model.

Policy recommendations

▶ DEPARTMENT OF EDUCATION (DOE)
▶ LEGISLATORS
▶ DISTRICTS

Align Delaware's policy structure for earning credits, progressing through grade levels, transitioning through grade clusters, and the teacher of record policy to support competency-based models.

▶ DOE
▶ LEGISLATORS

Allow seat-time waivers for districts/schools piloting competency-based courses, to allow students to complete courses at their own pace based on meeting learning targets and goals.

▶ DOE
▶ DISTRICTS
▶ HIGHER ED

Modify high school transcript and grading systems to emphasize academic mastery, and collaborate with higher education admissions to ensure acceptance of the transcript as a valid form of proof of college readiness.

▶ TEACHERS

Create and implement assessments that accurately measure competencies, analyze assessment results to identify students who are below mastery level, plan differentiated lessons to address the individual needs of each student, and use technology to create blended learning classrooms that allow for multiple leveled activities and centers.

A SNAPSHOT OF COMPETENCY EDUCATION STATE POLICY ACROSS THE UNITED STATES

■ ADVANCED STATES
Those states with clear policies that are moving toward proficiency-based education; more than just an option.
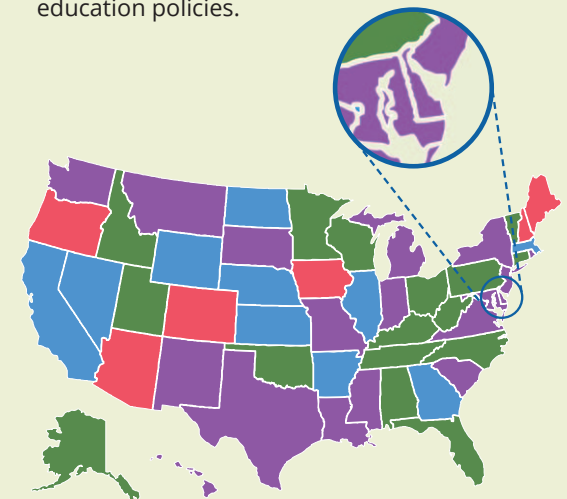
■ DEVELOPING STATES
Those states with pilots of competency education, credit flexibility policies, or advanced next-gen policies for equivalents to seat-time.

■ EMERGING STATES
Those states with waivers or task forces.

■ NO POLICIES IN COMPETENCY EDUCATION
States with seat-time and no competency education policies.

Source: Worthen, M. and Pace, L. *A K-12 Federal Policy Framework for Competency Education: Building Capacity for Systems Change.* A CompetencyWorks Issue Brief, International Association for K-12 Online Learning, 2014

EXTENDED LEARNING OPPORTUNITIES

Allowing students the opportunity to learn by doing is key to their academic success and to personalizing the learning experience of students.

Extended learning opportunities (ELOs) give students the ability to earn credit for learning completed outside of the traditional school day/year.

This should include opportunities for:

- INTERNSHIPS
- DUAL ENROLLMENT
- SUMMER PROGRAMS
- AFTER-SCHOOL PROGRAMS
- PROGRAMS AT COMMUNITY-BASED PARTNER ORGANIZATIONS SUCH AS LOCAL LIBRARIES AND MUSEUMS

What are the challenges?

- Currently, ELOs in Delaware are limited in most cases to internship and dual enrollment options, and should be inclusive of nonprofit partners, education institutions, and community leaders.
- ELO policies vary by district, especially with regard to the types of opportunities for which students may receive credit, which students may participate in the program, and how students apply for and receive credit.
- Districts that presently offer these opportunities often have issues staffing such programs because of a lack of funds and a dedicated role within their district.

Policy recommendations

▶ DOE
▶ DISTRICTS

Create a statewide network of ELOs in conjunction with the business community, nonprofit partners, education institutions, and community leaders.

▶ DOE
▶ DISTRICTS

Establish guidelines for ELO providers with regard to program requirements needed in order to be an ELO-qualifying program, including what competencies can be demonstrated through ELOs and how students can demonstrate those competencies.

▶ LEGISLATORS
▶ DISTRICTS
▶ DOE

Policymakers can provide districts with the flexibility to allocate staff time to manage ELO programs, allowing districts sufficient staff capacity for the management and oversight of those programs. Appropriate management is needed to ensure that students have access to meaningful opportunities from a variety of community partners.

PERSONALIZED LEARNING AND THE TEACHER EXPERIENCE

In order for teachers to be successful in their roles, they must be empowered to concentrate their time, energy, and expertise on individual students' needs. Not only must their roles be made more flexible, the means through which they receive relevant professional development throughout their careers must also be relevant and flexible.

PRESERVICE TRAINING TO FOCUS ON PERSONALIZED LEARNING

Teacher training that occurs during the undergraduate and graduate school years for an emerging teacher is critical to success in the classroom.

What are the challenges?

There are presently few options and little to no requirements for beginning teachers in Delaware to receive training in personalized learning practices, such as blended learning or competency-based learning.

Policy recommendations

▶ DISTRICTS
▶ HIGHER ED

Adapt higher education and preservice training and mentoring programs to reflect the new roles teachers may play in their classrooms in personalized learning models and the use of technology to facilitate personalized instruction.

▶ DOE

Revise Comprehensive Induction Program for new teachers to one that supports teachers in the use of personalized learning in instruction.

▶ DOE
▶ LEGISLATORS

Set aside funding for excellent teachers to serve as mentors who train new teachers in personalized learning.

▶ DISTRICTS
▶ SCHOOLS
▶ TEACHERS

Place new teachers with highly effective teachers who personalize learning and who are able to serve as one-on-one mentors throughout the new teacher mentoring program.

▶ DISTRICTS
▶ SCHOOLS
▶ TEACHERS
▶ HIGHER ED

Collaborate with college/university leaders to improve the selection process for placing student teachers with cooperating teachers, and increase student teaching requirements, as well as length of time spent teaching for student teachers.

Rodel Teacher Council Member John Strong (foreground) and Rodel Foundation CEO Paul Herdman (background) observe classes at MS 442 in NYC.

PROFESSIONAL DEVELOPMENT

Like all professionals, teachers must be exposed to high-quality, relevant, and job-embedded training that occurs throughout the duration of their careers. In Delaware, all K-12 public school teachers have access to an online professional development portal called the Professional Development Management System. There are presently over 45 online courses available to teachers for the purpose of teacher licensure and professional development clock hours.

Why are these professional development opportunities important to personalized learning and the teacher experience?

Interactive and engaging personalized professional development allows teachers to participate in professional development that is relevant to their instructional area on their own time and at their own pace. This kind of training allows for teachers to be trained by experts across district, city, state, and even national lines. It keeps teachers in the classroom, instead of having to leave the school for trainings. As the program becomes more widely used, it will be important that more courses be offered by expert teachers from across the state in areas that are traditionally underenrolled—such as trainings for students with low-incidence special needs.

TEACHERS AND SCHOOL LEADERS SHOULD BE REWARDED FOR THINKING OUTSIDE THE BOX WHEN IT COMES TO IMPROVING STUDENT OUTCOMES.
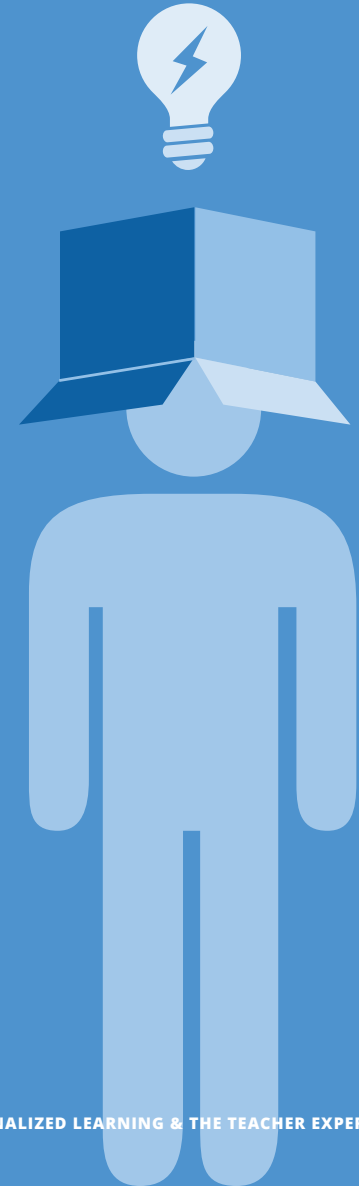
91% YES
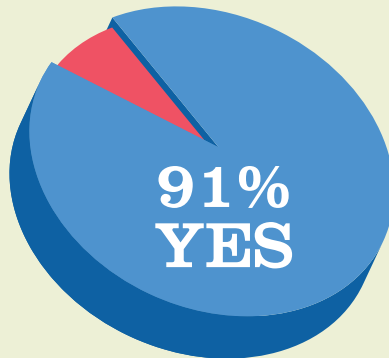
Source: 2014 RTC Teacher Personalized Learning Survey

Top: A typical American classroom in 1915;
Bottom: A typical American classroom in 2005.

INNOVATIVE, PERSONALIZED PROFESSIONAL DEVELOPMENT

Professional development is an integral part of a teacher's career; high-quality professional development is vital for student success.

Professional development can take many shapes—from being face to face to online to a hybrid—and it can take place over the course of one hour or an entire semester.

In Delaware, most PD occurs in a face-to-face, "stand-and-deliver" format, with some options available online.

What are the challenges?

- In order to effectively implement innovative, personalized instruction for every student, a parallel system of personalized professional development for educators must exist.

- Much of the PD offerings in Delaware are not flexible, engaging, or specific to special populations.

- There is presently an online system for PD that Delaware districts can use; however, it is highly underutilized and underadvertised by districts.

- Delaware teachers are underutilized in developing and delivering PD across the state. Leveraging technology to personalize PD is one way to encourage educators to develop and share PD resources with their peers.

Policy recommendations

▶ DOE
▶ DISTRICTS
▶ TEACHERS

Offer professional development opportunities that can be shared across districts in the state, including live sessions and licensed software.

▶ DISTRICTS

Offer time for professional development in addition to planning and preparation time.

▶ DOE
▶ DISTRICTS
▶ TEACHERS

Utilize existing state-owned/managed online PD systems (e.g., Blackboard, eLearning Delaware) to expand content offerings personalized to specific needs of individual teachers.

▶ DOE

Develop a culture of continuous learning, driven by the personal needs of educators, with opportunities for educators to lead their peers in sharing knowledge about personalized learning.

TEACHER EVALUATION THAT PROMOTES PERSONALIZED LEARNING

Delaware presently uses the Delaware Performance Appraisal System (DPAS-II) to evaluate teachers.

Building principals are chiefly responsible for conducting DPAS-II evaluation.

EVALUATION

What are the challenges?

• DPAS-II evaluators may not always receive sufficient training to evaluate and offer constructive feedback on how to infuse personalized learning strategies into the classroom, particularly for teachers in specialized content areas.

• Districts have the flexibility to train peer teachers to serve as credentialed DPAS-II observers; however, few districts have pursued this option.

Policy recommendations

▶ DOE

Realign the teacher evaluation system to one in which teachers are encouraged to critically analyze their own performance through videotaped lessons and student/parent perception surveys.

▶ DISTRICTS
▶ TEACHERS

Empower teachers to become credentialed DPAS-II observers of their peers, leveraging their experience and expertise to provide feedback and help teachers reflect on the connection between personalized learning and student outcomes.

WHAT IT LOOKS LIKE: EXAMPLE OF PERSONALIZED LEARNING CLASSROOM

This is an example of classroom layout options and student activities that could be used in personalized learning models. There are many different ways to personalize student learning, with technology used to varying degrees.

Computer-Based Learning

Small Group Practice & Projects

Teacher-Led Small Group
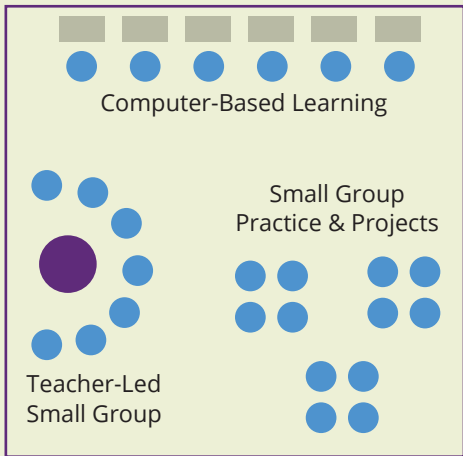
In blended learning models, the role of the teacher shifts to tutor and facilitator. Teachers structure learning to work with smaller groups of students who are empowered to work more independently on their own levels. Students move through structured station-rotations in the classroom, including direct instruction, small groups, and computer-based instruction or practice.

Source: Staker, H. and Horn M. *Classifying K-12 Blended Learning*. Innosight Institute, May 2012
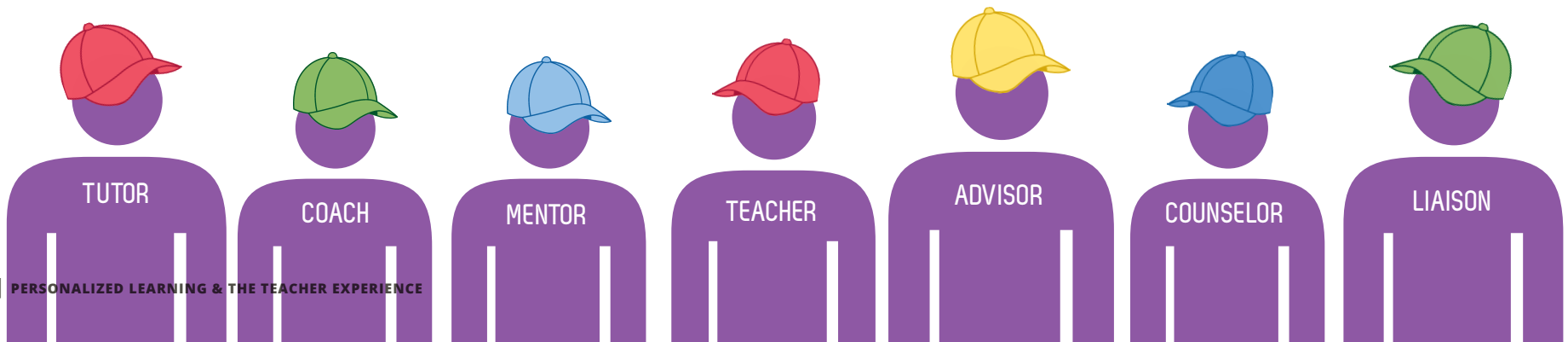
WE'RE NOT "JUST" TEACHERS

ROBYN HOWTON, a member of the Rodel Teacher Council and an English teacher and AVID building coordinator at Mt. Pleasant High School, Brandywine School District, Wilmington, Delaware, is a natural leader—both in the classroom, throughout her school, and with peer teachers. In addition to her course load, Robyn wears many unofficial hats—she mentors members of the football team and provides college counseling to at-risk students (and many of these students aren't actually students in her courses). Teachers such as Robyn who dedicate time and energy to improve the lives of their students must do so on their own time, with little to no structural support.

The problem Robyn and other teachers like her face is that the core of today's school design is a staffing model that relies on one teacher in each classroom, playing roles that are largely undifferentiated from those of the teachers down the hall, across the state, or across the nation. That design dooms highly talented teachers to solo practice, without the opportunity for career differentiation, on-the-job development, and career advancement that other professions take for granted. It restricts teachers whose talents likely extend far beyond the walls of their classroom.

Differentiating the roles of teachers allows for greater personalized learning to occur by placing teachers who are really great at a specific aspect of the teaching profession in roles designed to capitalize on their strengths. Differentiating the role of the teacher isn't simply bestowing titles on teachers and giving them added responsibilities. It's about changing the role of the teacher in fundamental ways, which means changing things such as the school schedule (to allow for things such as co-teaching and common planning time) and school resource use (to pay teachers more for taking on added responsibility). Ideally, these school design changes would be decided at the school level, based on the needs of students and teachers. Such a system would allow teachers such as Robyn to officially be an English teacher, an Extended Learning Opportunity coach, and/or an official mentor to other teachers in a school-based system that supports this at a systemic level—from scheduling to funding.

Robyn Howton wears three hats at Mount Pleasant High School: English teacher, mentor, and counselor.

TUTOR

COACH

MENTOR

TEACHER

ADVISOR

COUNSELOR

LIAISON

DIFFERENTIATED EDUCATOR ROLES

In the current system, teachers serve as tutors, mentors, instructors, group facilitators, data analysts, project managers, coaches, and in other roles. Differentiating the role of educators would divide these many functions into several distinct, official roles.

Differentiated educator roles encourage innovation in the classroom while capitalizing on the unique strengths of individual educators.

Differentiated educator roles also allow the role of the teacher to be much more adaptive—allowing teachers to lead from the classroom instead of leaving it for other opportunities. They give teachers increased flexibility in how they address the individual needs of their students.

What are the challenges?

Schools and districts presently do not have much flexibility and have not acted to create differentiated educator roles beyond the traditional role of the teacher.

Policy recommendations

▶ DOE
▶ DISTRICTS
▶ TEACHERS

Extend the reach of excellent teachers by redesigning the traditional role of the teacher and creating new roles that allow these teachers to take on new responsibilities and cultivate new skills.

▶ DOE
▶ LEGISLATORS
▶ TEACHERS

Expand the Teacher of Record requirement to allow for excellent teachers to reach the greatest number of students using new technological platforms that enable teachers to expand their reach across schools and districts.

▶ LEGISLATORS

Reassess how schools receive funding to make sure that funding is allocated based upon students' needs. Allow excellent teachers to teach a greater number of students when best practices and technology allow for a structured personalized learning environment.

▶ DISTRICTS

Create memorandums of understanding between districts that would allow teachers to offer courses between school districts as digital learning labs; student-teacher ratios should be flexible and able to adapt to technological advancements occurring in the classroom based on best practices.

DIFFERENTIATED ROLES GIVE TEACHERS GREATER FLEXIBILITY WITH THEIR MOST PRECIOUS RESOURCE: THEIR TIME.

Q: What challenges or obstacles do you face in implementing any of the instructional practices that support personalized learning?

81% TIME
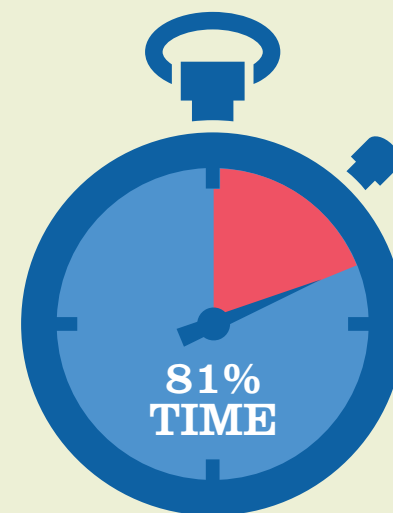
Eighty-one percent of respondents agreed that time is the single greatest challenge they face in implementing personalized learning.

Source: 2014 RTC Teacher Personalized Learning Survey

SYSTEMS TO SUPPORT PERSONALIZED LEARNING

PROCUREMENT PRACTICES

ACCEPTABLE USE POLICIES

STATEWIDE INNOVATION

STATE FUNDING

TECHNOLOGY INFRA-STRUCTURE

In order for students to receive tailored instruction delivered by teachers whose roles are flexible, the systems to support this personalized learning must exist at the school, district, and state levels. Systems must be aligned for a seamless experience that supports student learning and the teacher's instruction and professional development.

WHAT IS A LEARNING LAB?

AT CONRAD SCHOOLS OF SCIENCE, A.I. DuPont High School, and McKean High School in the Red Clay Consolidated School District, Wilmington, Delaware, personalized learning comes to life through the school district's online distance learning labs. And Rodel Teacher Council Member **Melissa Tracy**, a social studies teacher whose courses are taught in a learning lab, knows about this firsthand. The labs are the first of their kind in a Delaware public school district, and the high schools are equipped with lecture halls that contain flat-screen TVs, SmartBoards, seating with notebook computers, and cameras mounted in the room. The systems present in both learning labs allow for unique instructional opportunities to occur across school lines.

*Melissa Tracy's classes are taught in a learning lab.*

In Melissa Tracy's learning lab classroom, students at Conrad Schools of Science take specialized classes with peers through a virtual connection with students at A.I. DuPont High School.

Why are online learning labs important to the implementation of personalized learning? Why have teachers like Melissa Tracy urged their districts to move in this direction? How do online learning labs fit into the overall vision of personalized learning in Delaware?

Learning labs allow districts to provide unique course offerings for niche and advanced areas of study that are often underenrolled and require specific instructional expertise. In Red Clay, that means students have access to courses such as Advanced Human Geography, Advanced Placement Comparative Government, Legal Process, Military History, and Italian Language. The use of learning labs allows a school district to take advantage of flexible teacher schedules and the technology systems in place within partner schools. Without access to the learning lab, Melissa's students would likely not have access to the specialized courses and topics she teaches. By offering courses through the learning lab, Melissa has been able to reach more than 100 students with these focused courses during her time in Red Clay, many of whom have received college credit for the work they completed in her classes.
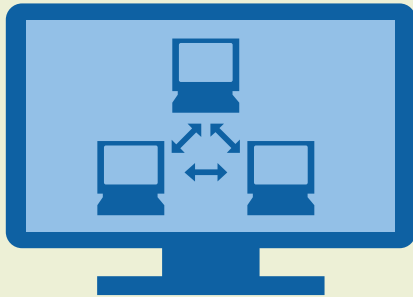
TECHNOLOGY INFRASTRUCTURE IS CRUCIAL TO PERSONALIZED LEARNING.

Q: **What challenges or obstacles do you face in implementing any of the instructional practices that support personalized learning? Select all that apply.**

62%
TECHNOLOGY INFRASTRUCTURE
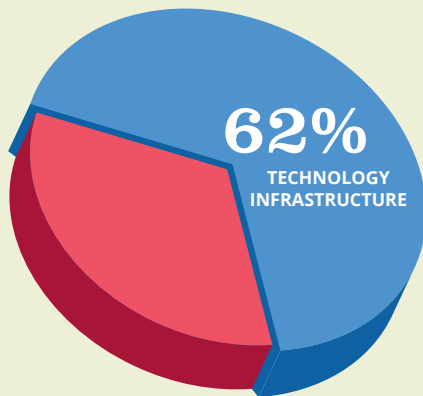
Sixty-two percent of respondents agreed that technology infrastructure is a challenge they face in implementing personalized learning.

TECHNOLOGY INFRASTRUCTURE TO SUPPORT PERSONALIZED LEARNING

A technology infrastructure that supports personalized learning is one that supports and fosters students learning on their own time, at their own pace, allowing them to be anywhere when they learn.

A robust technology infrastructure that supports personalized learning includes high-speed, wireless Internet, cloud-based applications to support and manage learning, and devices that give students and teachers the freedom to learn and teach.

What are the challenges?

- Wide disparities in access to technology, types of access, and network backbone to support schools.
- Delaware was once a national leader in providing all of its schools fiber optic, high-speed Internet; however, few upgrades have occurred, while there have been dramatic advances in both networking technology and the types of content (e.g., streaming technology, one-to-one devices) available.

Policy recommendations

▶ DOE

Increase district autonomy and provide greater flexibility with financial resources to reimagine the hardware, software, and broadband needs of districts in order to personalize learning for students.

▶ DOE

Foster collaboration between district technology departments to support E-Rate 2.0 initiatives: statewide access to a broadband infrastructure, a one-time capital investment fund to support full fiber optic cable access to schools and libraries with school-wide Wi-Fi, and transparency of and accountability for services and charges for broadband by system providers.

▶ DOE
▶ DISTRICTS

Increase training opportunities for district technology officers on applying for and using federal E-Rate funds for school technology resources.

STATEWIDE INNOVATION

> Innovation in personalization involves collaboration among schools, districts, the edtech marketplace, and policymakers to develop and design promising learning models that prepare students for college and careers.

What are the challenges?

- In most places across the state, schools and districts are working independently to adapt and promote personalized learning.

- Unlike other exemplars for innovation, Delaware does not have an Office of Innovation that provides input to help problem-solve issues, to share what is working in other schools/districts, or to offer incentives to schools/districts to implement proven, innovative models.

Policy recommendations

▶ DOE

Enable schools to apply for grants or waivers to encourage innovation and help them fund one-time startup costs associated with implementing personalized learning models.

▶ DOE
▶ LEGISLATORS

Create an Office of Innovation to expedite the process for schools or districts to apply for grants and waivers.

Such an office can provide unique funding and competitive grant programming to incubate personalized learning opportunities, using New York City's Innovation Zone (iZone) as a model and creating personalized "school-within-a-school" prototypes where the mantra is "fail fast, and fail early," fostering an environment that promotes innovation and challenges the status quo around teaching and learning.

IT HAS BEEN ALMOST 20 YEARS SINCE DELAWARE LAST MADE A SIGNIFICANT INVESTMENT IN ITS SCHOOLS' TECHNOLOGY INFRASTRUCTURE.
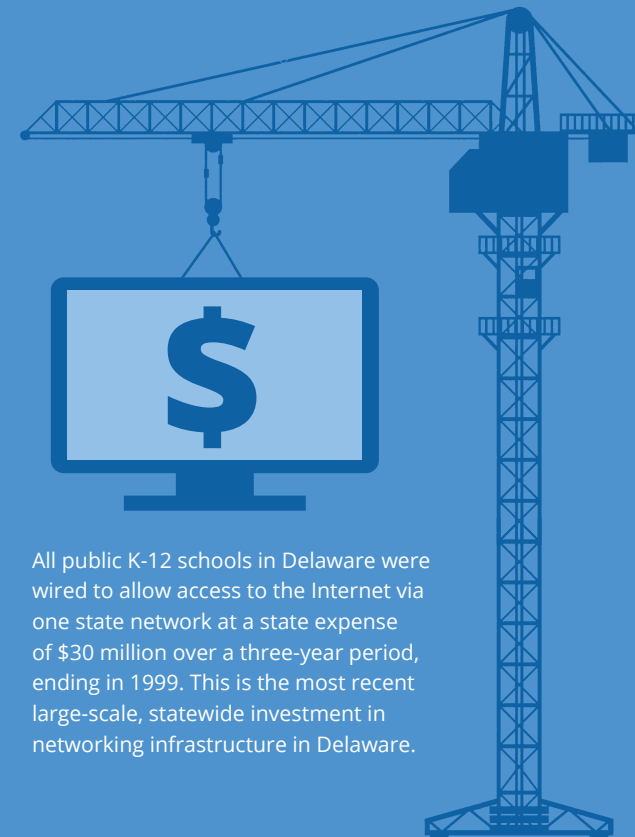
All public K-12 schools in Delaware were wired to allow access to the Internet via one state network at a state expense of $30 million over a three-year period, ending in 1999. This is the most recent large-scale, statewide investment in networking infrastructure in Delaware.

Source: University of Delaware Library

STUDENT- AND TEACHER-CENTERED PROCUREMENT PRACTICES

District business administrators frequently make large technology purchases and leases for devices

What are the challenges?

- Technology procurement, access, and support can vary widely from district to district, and even between schools in the same district.

- Procurement practices are largely driven by the bottom line, and technology expenditures are "easy to cut" when resources are limited.

Policy recommendations

▶ DOE
▶ DISTRICTS

Create and utilize mass-purchasing collaborative agreements that promote savings on technology purchases.

▶ DOE
▶ DISTRICTS

Encourage or require districts to engage in multiyear planning and budgeting for procurement of technology infrastructure, ultimately leading to sustainable investments in technology on a regular basis and consistent replacement or upgrades as needed.

STUDENT-CENTERED ACCEPTABLE USE POLICIES

Acceptable use policies (AUPs) govern the use of district-owned technology, including devices and the school network.

Districts are compelled to have AUPs to be recipients of federal E-Rate money.

What are the challenges?

- Current AUPs impose strict controls on faculty, staff, students, and guests using a school's network, including content filters that inhibit student and staff access to educational content.

- Some AUPs specifically prohibit registration of students' and staff members' personal devices on school networks.

- District leaders are overwhelmed by the compliance needs regarding AUPs and overlook how they can be used as a license for innovation.

Policy recommendations

▶ DOE
▶ DISTRICTS

Adopt the least restrictive device policies that allow personal computing devices to be used in schools with access to school-based Wi-Fi.

▶ DOE

Promote best practices in tech use and promulgate regulations that promote district autonomy in the creation of AUPs.

MASS PURCHASING COORDINATED AMONG DISTRICTS STRETCHES OUR TECHNOLOGY DOLLAR FURTHER.

STATE FUNDING FOR SCHOOLS

In Delaware, state funding for public education is allocated based on a unit funding model, which determines allocation of state funds for teacher salaries and other school expenditures on the number of "units" a school has according to annual student enrollment counts. Most other states use a foundation funding system, where districts receive funding to cover the minimum education needs of one student, and may receive additional funds to support high-need students. Only 13 states use alternatives to the foundation funding system.

Source: Education Commission of the States

What are the challenges?

- With Delaware's unit funding system, funds are allocated to districts for specific types of spending. Districts have very limited flexibility in changing allocations of state funds to accommodate the needs of their students.

- Under the unit count system, school and district leaders have limited flexibility in making decisions about how to use their resources, which can make planning for investments in personalized learning resources and/or technology infrastructure difficult.

- The majority of school finance decisions are generally made at the state level based on unit count formulae and are frequently disconnected from and unresponsive to student needs.

Policy recommendations

▶ LEGISLATORS

Move forward with flexible funding pilot programs, especially those that grant additional autonomy to schools and districts with regard to staffing and purchasing to support personalized learning.

▶ LEGISLATORS
▶ DOE

Move toward a more responsive and flexible funding system that addresses the unique needs of students through a foundation funding system, allocating funds to districts based on the needs of their students.
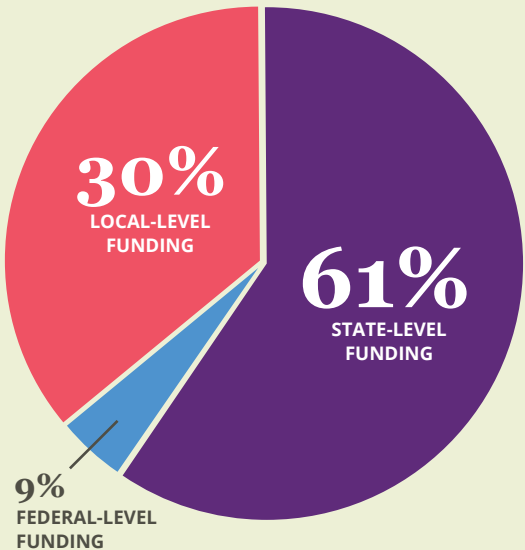
▶ LEGISLATORS
▶ DOE
▶ DISTRICTS

Give schools funding flexibility to purchase staff, technology, and other systems to support personalized learning.

PUBLIC EDUCATION FUNDING IN DELAWARE

30% LOCAL-LEVEL FUNDING

61% STATE-LEVEL FUNDING

9% FEDERAL-LEVEL FUNDING

THE MAJORITY OF EDUCATION FUNDING IN DELAWARE IS BASED ON AN INFLEXIBLE UNIT SYSTEM THAT DOES NOT SUPPORT PERSONALIZED LEARNING.

Delaware's unit funding system uses a student enrollment count on September 30 of each calendar year to identify the number of "units" a school receives based upon a predetermined formula. Units are commitments by the state to pay for specific expenses (including portions of educator salaries, support staff salaries, textbooks, etc.).

Source: Delaware Department of Education

WHO IS THE RODEL TEACHER COUNCIL?

The Rodel Teacher Council was formed in September 2013. As a venue to elevate the voices of Delaware's teachers, the council of sixteen champion teachers has focused its attention on personalized learning. By meeting with national leaders, visiting exemplary schools in the U.S., and piloting personalized learning in their own classrooms, the council hopes to scale personalized learning across the state. The Rodel Teacher Council Blueprint offers teachers, school leaders, and policymakers action steps to expand the use of personalized learning in the First State.

Please visit www.rodelfoundationde.org/blueprint/ for an interactive version of this blueprint and for more information on the Rodel Teacher Council and personalized learning.

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CAPITAL SCHOOL DISTRICT

rodel
FOUNDATION
OF DELAWARE

The Rodel Foundation is helping Delaware build a system of world-class public schools by 2020. The foundation is working to implement this vision by:

• Promoting policy changes that can have a huge impact statewide, such as raising academic standards, using timely data to make decisions, and investing in our youngest learners.

• Providing seed funding to innovative, potentially high-impact initiatives, such as the Vision Network of Delaware, which supports more than two dozen district and public charter schools. Whether ideas come from Seaford or Singapore, our strategy is simple: do more of what works.

• Creating and leading diverse statewide partnerships that catalyze action, such as the Rodel Teacher Council.

www.rodelfoundationde.org