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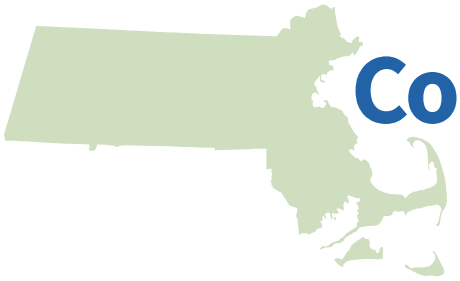
EDUCATION RESEARCH & POLICY



# Condition of Education
## IN THE COMMONWEALTH

## Putting Students at the Center of Reform

WINTER 2017

# Overview

When you imagine students thriving as learners, what do you see? Maybe you picture children huddled around an outdoor science experiment, making careful observations, or a team of teenagers designing a proposal for accessible public transportation. Or maybe you picture an individual child curled up with a book that speaks to her heart and imagination. Whatever subject, age group, or particular scenario you envision, chances are you are thinking about young people who are actively engaged with learning, who find value and satisfaction in their work. For too many children in Massachusetts, the daily experience of school feels like the opposite: tedious, dictated by a rigid schedule, separate from their personal interests and lived experience. The result: millions of lost opportunities for the type of deep, connected learning that we know leads to true understanding and preparation for real life.

It is time for us to call into question this disconnect—between what we know effective learning looks like and what we enact through policy and on-the-ground practice in our schools. In this year's *Condition of Education Action Guide* we do just that, offering a series of policy and practice changes that would align the Commonwealth's system of public education with what we know about effective learning, with the potential to put all of our children on a path to success in college, careers, and life.

## Setting a Bold Vision for Commonwealth Schools

The Rennie Center for Education Research & Policy works to build a more coherent, data-informed vision of public education for our Commonwealth, one that can guide shared efforts and improve outcomes for all students. Each year, we look at what the data from schools tell us about our progress and remaining challenges. In the accompanying *Condition of Education Data Report*, we provide an update of 25 state-level indicators of school performance from the preschool years through college. In this report, the *Condition of Education Action Guide*, we take the analysis a step further, formulating research-informed recommendations for statewide actions—policies, investments, and expansion of best practices—that have potential to address performance gaps and contribute to broad improvement in student outcomes.

In our last two *Condition of Education Action Guides*, we called on the Commonwealth to consider education more holistically, noting that schools should not—and cannot—work in isolation and that each child's education encompasses more than academic learning. In our 2015 report we focused on the role of community partnerships in addressing learning gaps, and in 2016 we explored the critical importance of social-emotional learning to academic and life success. This year, we build on our preceding reports with an even bolder set of recommendations that operationalize the vision set forth in prior years.

After three years of presenting key data and engaging in conversations with educators and leaders across the state, we've come to the conclusion that more dramatic action is needed. Even as we continue to engage community stakeholders in our schools and become more proficient at addressing the full set of skills students need to succeed, we know we will not achieve broad success for all young people without examining the very crux of how learning happens. We know that the one-size-fits-all education model inherited from the industrial era does not serve the majority of children, and yet we continue to tinker around its edges, placing greater demands on this outdated system. It is time to question the fundamentals and rethink the core structures that define the learning experience for the vast majority of the Commonwealth's students.

How do we do that? We, along with a number of researchers and leaders in the field, believe that the best path forward is to pursue a set of policies and approaches known as *student-centered learning*.

# Student-Centered Learning

## What It Is

Student-centered learning is not a new concept. In fact, this umbrella term encompasses a number of well-known practices with deep roots in learning science, psychology, and educational theory.[1] At its essence, student-centered learning is any instructional approach that begins with the needs and interests of the individual learner and engages young people as drivers of their own learning experience.

Student-centered learning is often used interchangeably with related concepts, such as *personalized learning, differentiated learning, adaptive learning,* and *competency-based learning.* There are slight variations among these terms and an array of related models espoused by various schools and organizations. Since no single model will work for every child or community,[2] we think it is wise to avoid getting hampered by a rigid definition. Instead, it can be helpful to consider the cross-cutting principles of student-centered learning that can be applied in a range of ways:

- **Individualization:** Students engage in authentic, self-paced learning activities driven by their interests and abilities.[3]
- **Student agency:** Students are active participants in setting goals and determining how learning happens.[4]
- **Relationships:** Learning takes place in the context of strong adult-student and peer-to-peer relationships.[5]
- **Expanding learning opportunities:** Learning takes place in a variety of settings and beyond school hours.

## Why We Need It

Given the diverse needs of the Commonwealth's students, a one-size-fits-all approach to learning is misguided. Student-centered learning allows educators to meet students where they are with strategies that maximize each student's progress and engagement. By tailoring learning experiences to students' interests and learning styles, student-centered learning fosters a stronger sense of motivation and self-efficacy, which research links to improved achievement. Student-centered learning builds upon rigorous academic content, alongside opportunities to develop the nonacademic skills needed for college and careers.[6] Student-centered learning is also more efficient: students get targeted support in areas where they struggle and opportunities to accelerate when they demonstrate mastery, allowing educators to focus limited time and resources where they have the greatest impact.[7]

In schools that implement a set of comprehensive student-centered learning approaches, we see positive results. For example, a recent study of four open-enrollment California high schools with diverse student-centered designs found marked improvements in state assessment performance, graduation rates, college eligibility, and college persistence.[8] When considering singular strategies aligned with student-centered learning, alternative grade arrangements—that create cohort models, allow students to change schools less frequently, and result in better student-teacher relationships—bear some of the most promising evidence.[9]

# A Moment for Action

Since the Education Reform Act of 1993, Massachusetts has demonstrated a sustained commitment to implementing high expectations, clear standards, and rigorous assessments of performance across public schools. This approach to reform has been largely successful, contributing to substantial improvements in student achievement, with Massachusetts routinely placing first among states on the National Assessment of Educational Progress and remaining competitive on international assessments. But while improvements have been notable, Commonwealth schools are still challenged by substantial achievement gaps, and too many students who meet the state's graduation standards still find themselves unprepared for the reality of college and careers.

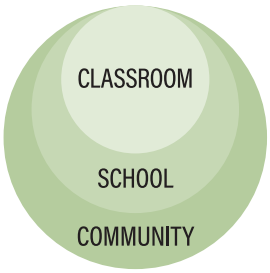
Our job is far from done. We have yet to address the full range of skills young people need for success or to fully engage all of our diverse students in learning that maximizes their potential. Put simply: the state's laser-like focus on academic outcomes has been important but insufficient. In Massachusetts, student-centered policy and practice has lagged behind many of the other New England states, where, for example, a high number of districts have implemented competency-based practices.[10] We believe it is time for a new phase of reform, one that is centered on student-learning.

## Toward a Framework for Common Action

It is time to revisit the Commonwealth's reform vision and consider how more student-centered policies and practices could yield better outcomes, particularly for the state's most underperforming groups.

The good news is that Massachusetts has a number of assets in place that could be directed toward a more student-centered phase of reform, including: the Massachusetts Tiered System of Supports that helps schools monitor individual students' development on a range of factors; the state's Individual Learning Plan template that engages students as co-creators of their educational plans; and a range of innovative local programs and partnerships, from early education through secondary-to-postsecondary transition programs, that are engaging young people in more personalized and authentic learning experiences.

What is missing is a broader vision of how these pieces could support a more student-centered *system* of education in our state. In the following pages, we outline three building blocks of a student-centered learning system:



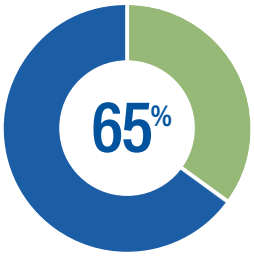

1. **Classroom-level strategies that support every learner:** Regular, holistic assessment, paired with differentiated instruction that provides multiple access points for students' self-directed learning.
2. **School structures that foster student-centered learning:** High expectations for student learning that are easily understood by all students, who can move toward mastery at different rates via more flexible schedules and school designs.
3. **Student-centered community partnerships:** Expanded learning that goes beyond school walls and hours to provide flexible, engaging, credit-bearing opportunities for students to explore their interests while mastering skills linked to academic content.

These are highly interdependent and *not* meant to be implemented sequentially. They do, however, offer useful vantage points for illustrating effective practices, which is what we have done in the pages that follow. To further illustrate what these practices look like with real students, we zoom in on a specific age band in each section and provide profiles of exemplary programs. At the end of the report, we include cross-cutting recommendations—the policies and investments that the state and its districts should consider to make robust student-centered learning the norm.

# Where We Are Now: Key Indicators

All indicator data cited in this box can be found in the Rennie Center's *2017 Condition of Education Data Report*.

Current data from across Commonwealth schools reveal steady growth as well as large and persistent gaps in learning. Student-centered learning presents an opportunity to make progress against these continuing challenges.



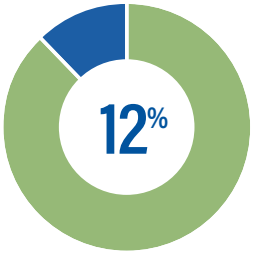

Children aged 0-5 eligible for a subsidy and enrolled in **high-quality early education** programs[A]

## Early Education Indicators

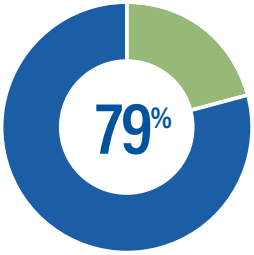
A high-quality early education is often characterized by personalized and individualized approaches; access to quality early education—especially for at-risk students—makes it more likely that our youngest learners will have a solid foundation for academic and social-emotional development.

## K-12 Indicators

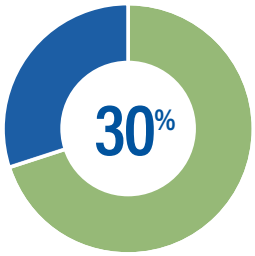
Absenteeism is often considered a proxy for student engagement especially during the middle and high school years; utilizing student-centered approaches has been documented to promote students' engagement in their own learning, a key ingredient in fostering student success. As students enter high school and tackle rigorous academic content, more students are identified as at-risk for not graduating based on 9th grade course pass rates. Differentiated and personalized approaches—including expanding students' options for demonstrating mastery of skills—become even more important in light of these critical academic milestones.




Students **absent from school** 10% or more of days enrolled[B]




Students passing all **9th grade courses**[C]




Students **enrolled in developmental (remedial) courses** in college[D]

## College and Career Indicators

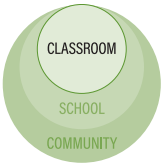
Nearly a third of the Commonwealth's public high school graduates require developmental coursework once they enroll in public higher education institutions; it's clear we can do more to prepare youth for college and career success, and a more student-centered system would offer varied, engaging pathways to meet postsecondary goals.

A. Source: Massachusetts Department of Early Education and Care: data provided by staff for school year 2016 (fall 2015—spring 2016)

B. Source: Massachusetts Department of Elementary and Secondary Education: data provided by staff for school year 2016 (fall 2015—spring 2016)

C. Source: Massachusetts Department of Elementary and Secondary Education: data provided by staff for school year 2016 (fall 2015—spring 2016)

D. Source: Massachusetts Department of Higher Education: data provided by staff in fall 2015




PRIORITY ONE

# Starting with the Individual: Classroom-Level Strategies that Support Every Learner

The first and most fundamental piece of a student-centered learning experience is what happens in the classroom. Abundant research describes strategies that teachers can use to place students at the epicenter of instruction. Student-centered learning recognizes that students begin at different starting points and treats time, rather than learning outcomes, as the variable.[11] In a student-centered classroom, each student gets the personalized instruction they need—at the pace they need—to attain high standards.[12]

## Core Features of a Student-Centered Classroom

Student-centered learning is not a new concept. Its theoretical and research roots reach back several decades, and a number of well-known teaching models—like project-based learning—are built on related principles.[13] Research on student-centered learning has picked up pace in the past several years, with newer research pointing to several characteristics of effective classroom practice.

**Emphasis on personalized learning strategies:** Students need effective strategies to direct their own learning.[14] Personalized learning depends on student choice and voice. Teachers can help students be more successful by providing a classroom environment with opportunities to practice metacognitive and self-management strategies such as setting goals, regulating effort, and self-advocacy.[15]

**Student ownership:** Student-centered classrooms are structured to foster exploration, discovery, and self-directed learning.[16] The teacher works as a facilitator, rather than director of learning, and typically negotiates learning plans with students, giving them opportunities to exercise choice and self-awareness, while ensuring progress toward learning objectives.[17]


**Differentiated instruction:** Teachers use information gathered from a combination of formal and informal assessments to design multiple access points to the same high standards.[18] These varied learning pathways make the curriculum more accessible and engaging for all students.[19] By implementing individual learning plans, flexible grouping, and a variety of techniques for scaffolding learning tasks, teachers can increase students' sense of efficacy while maximizing their acquisition of new content and skills.[20]

**Comprehensive assessment:** Teachers must establish a baseline understanding of each student's strengths and needs, including their social-emotional abilities and personal interests.[21] Ongoing formative and summative assessments—with formal and informal check-ins—allows teachers to monitor student progress and keep instruction aligned with each student's growth.[22]

## Equipping Educators to Lead Student-Centered Instruction

Educators need support and training to implement student-centered learning techniques, particularly if the principles are new or inconsistent with their current practice. The Commonwealth and individual districts can empower more educators to implement student-centered learning by providing several types of support.

- **Examples of best practice:** Individualized learning is not a new concept, which means there are opportunities to document and share best practices, including those developed by Head Start, gifted and talented education programs, and project-based and experiential learning programs—all of which have been forerunners in applying student-centered learning techniques.[23]
- **Professional development:** Teachers need more than one-shot workshops to implement sophisticated student-centered strategies. They need opportunities to analyze and adjust instruction to bring diverse learners to proficiency.[24] Teachers also need personalized supports, as well as practice with a range of intrapersonal and interpersonal competencies to effectively teach children with a range of emotional and behavioral needs.[25]
- **Preparation and licensure:** The state's standards for teacher preparation and licensure can incorporate more research-informed principles of student-centered learning. State-level guidelines would give teacher preparation programs greater incentive to engage aspiring teachers in observing and implementing key student-centered practices, thus providing educators with the foundation they need to become effective facilitators of student learning.

- **Quality assessments to drive practice:** Educators need rich information about who their students are, including their social-emotional competencies, interests, strengths and skill gaps.[26] In some schools, this will require access to more comprehensive assessments than are currently available; in other schools, teacher training will be a higher priority.

## Lessons from Special Education

Student-centered learning is matter of course in special education, where the diverse needs of children demand highly personalized approaches. Special education offers lessons that can be applied across the developmental spectrum and that, if brought to scale, have the potential to benefit all Commonwealth students.[27]

**Individualization by design:** Special educators constantly modify instruction to make it accessible for learners of varied abilities.[28] They must remain adaptable, tailoring their approaches to each learner and offering explicit instruction to help students develop the motivation, self-efficacy, and self-regulation skills needed to thrive.[29] By progressively incorporating more challenging tasks, introducing and tapering scaffolds, and providing frequent opportunities for practice and feedback, special educators are in the habit of designing highly personalized, data-driven instruction.[30]

**Assessment at the core:** To respond effectively to students' needs, special educators depend on diagnostic and formative assessments that are sensitive enough capture a range of subskills and can be used to monitor gradual improvement even for students who begin far below standard.[31] They also use a variety of less formal assessments, including ungraded checks for understanding and tasks that vary in length and difficulty, while requiring demonstration of the same curriculum concepts.[32]

**Specialized training is key:** Teaching students with disabilities requires sophisticated lesson design, assessment, and decision-making. All teachers should have opportunities to develop such skills as they are relevant to any classroom with diverse learning needs.[33] Several innovative teacher preparation programs require all candidates to complete special education training for this reason; these practices can and should be extended to all new and developing teachers.

SPOTLIGHT:

## Student-Centered Learning in Early Education

Student-centered learning has particular importance in the early years when children are developing the foundational academic and social-emotional skills they will need for success in school. For this reason, student-centered practices are often at the heart of high-quality early education programming. As the Commonwealth expands access to quality early education and care, and as educators in other grade levels seek to develop a more student-centered practice, they can look to well-developed early learning models for lessons in at least four areas.

**Focus on social-emotional development:** As discussed in the Rennie Center's *2016 Condition of Education Action Guide*, children who are best prepared for school success have developed important social-emotional capacities like confidence, curiosity, emotional self-control, and expressiveness.[34] Children who are born into poverty and experience increased economic, social, and psychological stressors are at increased risk for delayed social-emotional skill development.[35] Addressing social-emotional development is particularly important, then, for children who begin early education with increased risk factors, and requires ongoing assessment and responsiveness on the part of teachers.[36] Student-centered early learning models offer the space and structure for such holistic assessment and targeted support.[37]

**Family engagement:** Because children enter early education at different developmental stages, educators work with families to understand each child's strengths and needs, and sequence learning opportunities that build toward proficiency.[38] Many strategies that families learn from educators can be reinforced at home. One particularly effective technique is the dialogic reading model, in which adult and child take part in an interactive discussion during a read aloud; this model has been shown to accelerate gains in vocabulary, oral comprehension, phonological awareness, and letter knowledge.[39]

**Informal approaches:** More loosely structured, play-based learning environments provide educators with a range of opportunities to observe their students' progress toward developmental milestones—information they can use to sequence and adapt instruction.[40] Research on early childhood education indicates that children who are actively engaged in less formal, more child-initiated learning models have fewer behavioral and social problems and perform better on fourth-grade academic measures than those who participate in teacher-directed early education models.[41]

**Time for reflection:** Through trial and error, young children are developing their confidence as learners—a capacity that influences their achievement for many years to come. One way early educators build confidence is by making time to discuss interests, goals, strengths, and difficulties with individual students. This process of feedback, reflection, and self-assessment helps children understand their own capacities and see where their efforts lead to growth, which builds their sense of self-efficacy and motivation to learn.[42]


PRIORITY TWO

# Conditions for Success: School Structures that Foster Student-Centered Learning

At the heart of student-centered learning is the notion that one size does not fit all. Student-centered learning approaches allow students to learn at their own pace, take intellectual risks, exercise choice, and advocate for their needs—all experiences that foster personal ownership, agency, and autonomy and that contribute to increased motivation and achievement.[43] The school environment plays a big role in supporting such self-directed learning.[44] Competency-based school designs, in which students advance based on demonstration of mastery rather than seat time, provide the strongest infrastructure for student-centered learning to flourish by simultaneously supporting personalization and high standards.[45] When schools have the autonomy to implement competency-based designs, they can create the systems and structures needed to put students at the center of learning schoolwide.

## Core Features of Competency-Based Schools

Competency-based education is an umbrella term for a variety of school designs that share several common features.

**Clear expectations for student learning:** Competency-based education does not sacrifice rigor in order to individualize. Schools set clear expectations for what every student should know and be able to do, with students arriving at critical milestones in a variety of ways.[46] Students must demonstrate mastery of clearly articulated learning targets before advancing to the next level.

**Flexible use of time:** Competency-based designs treat time as a variable, with students moving toward mastery of well-sequenced knowledge and skills. Some students may be able to accelerate, while others require additional time and support to acquire and demonstrate mastery of individual standards.[47] Bells, schedules, and school-year calendars can all be modified to provide greater flexibility.[48]

**Participatory assessment:** Learners help decide how they will demonstrate mastery and have opportunities to reflect on their strengths, weaknesses, interests, and plans for the future.[49] Participatory assessment becomes a part of the school's culture, is shared across classrooms, and is a factor in making decisions about students' learning pathways.

**Transparency and collaboration:** A fully developed competency-based model requires clearly articulated school-wide policies and practices to ensure common understanding of standards and methods of assessment; the school community can then develop options for providing additional time and support as needed.[50]

## The Role of School Leaders in Student-Centered Models

Cultivating a true student-centered learning environment requires a concerted, collaborative effort among educators, with school and district leaders playing a crucial role. Placing students at the center of decision-making requires teachers and administrators to be responsive to their needs, and schools must similarly be empowered by the district to adopt flexible and responsive learning structures. School and district leaders can create the conditions for student-centered learning in several ways.

- **Vision and values:** School and district leaders are essential to setting the school's vision and establishing a culture in which teachers, students, and families engage in individualized learning. Introducing more student-centered approaches—such as indivdual learning plans—requires a close examination of existing school values and the creation of systems that support a culture of rigor, inquiry, and discovery.[51]
- **Flexible resource use:** Creating a true student-centered school means rethinking the use of resources, including staffing and time.
- **Professional support:** As teachers transition into roles as classroom facilitators and advisors, they need opportunities to practice using concrete tools like diagnostic assessments.[52] It is up to school leaders to prioritize professional learning so that teachers can learn to implement these new approaches and refine their skills.

- **Autonomy:** Schools need autonomy to develop a schedule that makes sense for their students and to hire and develop a team of educators that is well-positioned to respond to the student population. At the district level, this may require changes in structures and policies related to finance, human resources, and school governance.
- **Distributed leadership:** To effectively foster competency-based models, district leadership must develop more inclusive and adaptive decision-making strategies, and empower school leaders, teachers, and students to help set appropriate policies and practices for their school and the district as a whole.

## SPOTLIGHT:

## Middle School Grades

The middle school years (grades 6-8) are a critical developmental stage when students are building a stronger sense of themselves and their own agency. The school environment can go a long way toward developing such agency by providing enough flexibility to engage students as co-designers of their own learning process while ensuring high standards.[53] Several school design features support student-centered learning targeted to the needs of middle school students.

**Small learning communities:** Students are organized into smaller clusters with a consistent team of teachers who get to know the students' interests and learning needs.[54] Being part of a smaller community within a larger school helps students feel a sense of safety and belonging that contributes to increased motivation, engagement, and self-efficacy.[55]

**Individual learning plans:** Learning plans offer a template for mapping out an individual student's learning goals and for engaging students as co-authors of their school experience. When adopted schoolwide, the learning plan can be used across subject areas to help students manage their own learning, engaging students to see the relationship between short-term skill gains and long-term objectives.[56]

**Advisement:** Students may be paired with a faculty advisor or adult mentor who supports them across subject areas. Advisors build a diagnostic profile that describes the learner's personal characteristics, attitudes, knowledge, skills and learning styles.[57] Advisors then regularly check in with students on their progress, helping them make connections to their talents and interests, and supporting them to advocate for their learning needs.

**Targeted support:** To address the learning needs of diverse students, schools may need to free up teachers to deliver supplemental small-group instruction, or they might recruit community members to provide after-school tutoring to help fill learning gaps.[58]

**Student voice:** At the classroom level, a distinguishing facet of student-centered learning is a degree of student choice in selecting topics and learning strategies.[59] At the school level, students may exercise their voice by providing formal and informal feedback on the quality of learning experiences and the school environment. Student perspectives provide valuable information to guide school improvement while also empowering students as full participants in shaping their educational experience.[60]


PRIORITY THREE

# Learning Beyond Walls: Creating Student-Centered Community Partnerships

Maximizing the learning of every student means breaking down many of the silos that define traditional schooling. That includes the lines that separate school from community and the school day from the rest of life. Many student-centered learning models have been able to create the flexibility and resources needed to truly customize learning by engaging partners that support learning beyond the school day and school building.[61] When schools and community partners collaborate, they can make learning more engaging and efficient, while helping students become the drivers of their own education.

## Core Features of Expanded Learning Models

Effective student-centered learning partnerships are both highly individualized and systematic. They involve multiple pathways to the same rigorous standards. While there is tremendous diversity and opportunity for innovation in this type of learning, the best expanded learning (or "anytime, anywhere") models are defined by three features.


**Flexible schedule:** Students may engage with a variety of educators—teachers, school partners, or business community members—in rigorous learning opportunities that contribute toward their mastery of standards. That can include programming before and after school, on weekends, and during school vacations.[62]

**Flexible location:** Learning can happen in a range of settings that may include internships with local businesses, seminars in local museums, outdoor experiential learning programs, online courses, and more. When tied to individual students' learning needs and goals, these types of opportunities have been shown to increase students' acquisition of new skills and knowledge while boosting their self-confidence, school attendance, and overall engagement with learning.[63]

**Shared expectations:** While student-centered partnerships are flexible in many ways, one place they don't compromise is on standards. Students, school faculty, and community educators must have a common set of expectations for where students are headed so they can share repsonsibility for crafting individualized learning experiences.[64]

**Strong relationships with adults:** Community partners increase the adult-to-student ratio, supplying students with important adult relationships that can contribute to their academic and personal development.[65] Partners can take on roles as educators, mentors, role models, and caring adults who help students articulate their goals and stay on track to reach them.

## New Roles and Systems for All

Expanded learning requires new ways of looking at curriculum, instruction, assessment, and a whole host of structures and systems that support effective collaboration with community partners and personalization of learning pathways for students.[66] Traditional roles and systems can transform dramatically in the process.

- **Collaborative decision-making:** In an expanded learning program, classroom teachers are no longer the sole drivers of instructional content.[67] Teachers and school leaders must engage with community partners to set a shared purpose and vision for learning.[68] This is likely to require much greater investment in community engagement than educators are used to, as well as new models of shared decision-making.[69]
- **New and shared data systems:** Coordination across entities requires removing barriers to data about students as well as new ways to manage a variety of information about individual students that goes beyond traditional course-centered grade-based systems.[70]
- **Rethinking credit attainment:** Massachusetts has yet to provide guidance on how schools should assign credits for expanded learning. The Commonwealth can look to New Hampshire, where schools have experimented with expanded learning for far longer and have developed flexible approaches to evaluating students based on competencies rather than seat time.[71]

## Leveraging Technology

Rapid growth in technology has created myriad new opportunities for making learning more student-centered. Technology in the classroom can offer students an adaptable, self-paced entry point to curriculum in a more cost-effective way, while providing teachers important tools to monitor student understanding and match instruction to classroom needs.[72]

**Empowering students:** Digital access is a powerful tool for content exploration, manipulation of concepts, application of higher-order skills, presentation of ideas, and interaction with others.[73] By making varied, self-paced learning more manageable, digital access also creates opportunities for students to exert choice and create a sense of ownership over their learning.[74]

**Empowering educators:** Technology equips teachers to assess students' strengths and needs and to dynamically track, illustrate, and translate these data into decisions about the learning approaches best suited to each student.[75] Teachers' instructional planning, goal-setting with students, and communication with parents can all be enhanced; technology also allows teachers to maintain a comprehensive view of students' learning history, emerging strengths, and interests.[76]

### SPOTLIGHT:

## The Secondary-to-Postsecondary Transition

Expanded learning opportunities are particularly potent in the high school years, providing a mechanism for tailoring learning to students' college and career aspirations. When high school students participate in work-based learning, academic internships, college-level coursework, and other opportunities beyond the traditional school setting, they become more invested in learning both inside and outside the classroom. High schools in the Commonwealth and beyond have found several major advantages to expanded learning opportunities.

**Real-world learning:** By taking learning beyond school walls, students have opportunities to engage in authentic work, using higher-level skills to generate solutions to real problems and to make meaningful contributions to their community. Real-world learning has been shown to motivate and accelerate learning for diverse populations, including advanced students as well as those behind on credits and at-risk of dropping out.[77]

**College and career readiness:** Expanded learning opportunities provide an ideal vehicle for developing the higher-level skills demanded by colleges and contemporary careers. When they learn beyond school walls, students have opportunities to tackle complex issues, work in teams, communicate ideas and solutions, and engage in long-term projects that require sustained effort and a variety of self-regulation and time-management skills—all experiences that contribute to success in college and careers.[78]

**Expanded graduation pathways:** Looking beyond traditional school hours and settings allows for a much wider range of ways for students to advance toward graduation. Modifying seat-time policies, and allowing students to demonstrate mastery of standards when they are ready, provides students the flexibility to learn in different settings and at different paces, while still accumulating credits toward graduation.

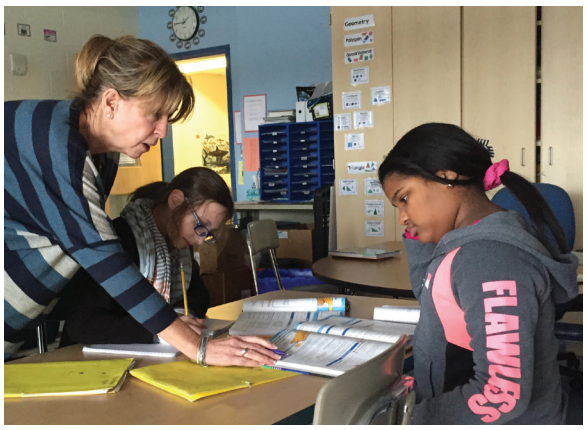
**Community connections:** Expanded learning opportunities bring community partners into the education process as mentors, supervisors, and co-planners of curriculum. Students also participate in their community in new ways, making tangible contributions that address real needs. This symbiotic relationship is especially evident in expanded learning programs with service components.[79] Research indicates that students who participate in high-quality service learning experience an increased sense of personal and social responsibility; improved motivation, attendance and academic performance; and decreased likelihood of engaging in risky behaviors.[80]

# Spotlight on Massachusetts Exemplars

Massachusetts is home to a number of innovative schools that exemplify the student-centered approaches highlighted in this report. As stated earlier, there is no single way to implement effective student-centered learning; schools and their partners have made choices about how to build a personalized, engaging program of study for their particular student population. The following three examples display a range of well-developed approaches.

Since each model demonstrates multiple classroom level, school level, and community practices that support student-centered learning, we've used icons to help readers draw connections between the more generalized concepts presented previously and their on-the-ground manifestations in schools.

## The Carlton School: A Student-Centered Turnaround



The Carlton School is a small elementary school serving 250 students in Salem, Massachusetts. Five years ago, the Carlton was designated a "Level 3" underperforming school by the state, with a majority of students failing to meet proficiency on MCAS for several years in a row. The school had experienced rapid turnover in leadership during that time. Understanding the urgency of the situation, Carlton staff proposed a bold innovation plan that has already produced dramatic improvements; in 2015, 96 percent of students met targets, putting the Carlton in the state's "Level 1" performance tier.

Staff attribute this turnaround to a cohesive, student-centered approach in every classroom that includes:

**Emphasis on personalized learning strategies:** Students need effective strategies to direct their own learning,[81] and support from teachers to practice and reflect on strategies such as setting goals, regulating effort, and self-advocacy.[82] Students at the Carlton work in multi-age classrooms, where teachers craft a personalized learning plan designed to move them to the next standards-based milestone.

**Frequent assessment:** Benchmark assessments in English language arts, math, science, and social-emotional skills help teachers track students' progress within their multi-age classrooms. Toward the end of the trimester, teachers review each student's progress and determine if a student is ready to transition to the next multi-age team.


**Intensive, differentiated instruction:** Students demonstrate mastery of skills in multiple ways. Based on their performance, teachers determine next steps for students after a whole group lesson: independent practice for those close to proficiency or an intensive intervention for those with further to go. Flexible scheduling and stipended positions allow teachers to provide regular small-group interventions in reading, writing, and math.

**Student ownership:** Students help set their own goals for the trimester in consultation with their teacher and parent. They also help to shape their transition plan when moving to a new classroom; prior to the transition, students meet with their current teacher, receiving teacher, parents and support staff to discuss their progress and develop next steps.

**Attention to relationships:** One strategy Carlton staff use to cultivate a more connected community is Community Circles, in which a staff member and approximately eight students of varied ages meet monthly for lunch or to do crafts or a group project. These sessions allow students to build relationships with a caring adult and students in different teams.

The Carlton's student-centered instructional model has taken strong root since first introduced in 2010. This year, the Carlton is experiencing teacher turnover for the first time since the turnaround, prompting staff to consider how they can continue to prioritize training in differentiated teaching methods for new and returning staff.

# Brookline High School: Flexible Paths to Graduation

The Alternative Choices in Education (ACE) program at Brookline High School provides a competency-based approach for students who need an alternative to traditional schooling. In 2014, the staff brought students, alumni, and parents together to design a competency-based program that could provide students with flexible paths to graduation. ACE launched in 2016 as a semi-autonomous program-within-a-school.

Today, students take core academic subjects (English, math, history, and science) in ACE, while taking their electives, world language, and health and fitness in mainstream classes. Four content teachers serve up to 48 students at a time. These students include a significant number who were off-track to graduate and others who were bored in regular classrooms and eager to have more creative control over their education; about 40% of students have IEPs. What unifies these diverse students is a need for differentiated learning, which ACE provides via the following:

**Clear expectations, flexible time:** ACE teachers have designed six-week mini-courses with milestones pegged to the high school's graduation requirements in each core subject. Students move at their own pace, taking two academic modules at a time in multi-age classrooms. They take diagnostic assessments when they enter the program and then use an electronic roadmap to track the benchmarks as they complete them.

**Participatory assessment:** Students can choose how they demonstrate mastery of benchmarks; options include traditional paper-and-pencil assessments and performance-based assessments, including portfolios and presentations.

**Frequent check ins:** Students meet twice a week in small, multi-age advisories where they have a one-on-one check-in with their faculty advisor, do team-building activities with their peers, and talk through issues of interest and concern.

**Voice and accountability:** Students make an intentional choice to be part of the ACE community; they are expected to hold each other accountable for practicing the program's seven habits of success, which include self-awareness, perseverance, and community mindedness. Two students from each advisory are elected to serve on the Student Leadership Team, which meets weekly to raise concerns, give feedback on program policies, plan student-facilitated discussions, and organize field trips.

**Community and relationships:** Staff deliberately invest in building relationships by making time for community-building trips and service projects. ACE engages families as active partners too; parents and guardians participate in three student-run exhibitions of academic progress every year.

After just a year, the newly launched ACE program is already showing results: students' total unexcused absences were reduced by 50% or more in each subject area, and they also saw a substantial improvement in their grades. Based on what staff observed about students' needs and interests, the program is exploring additional ways for students to learn, including internships, dual enrollment courses at local colleges, homegrown online courses, and credit-bearing teaching assistantships in the classroom.

# Leominster Center for Excellence: Learning Without Walls

The Leominster Center for Excellence was founded as a state-designated "innovation school" in 2012 to provide a quality alternative learning option for local students. This small school currently serves 40 students, with plans to expand; many students have special learning needs, including autism or anxiety. In 2014, LCE became a member of the national Big Picture Learning network whose schools are characterized by highly individualized, real-world learning.

The overall emphasis at LCE is in creating deep, meaningful learning experiences that extend into the community. Several student-centered design features make this possible:

**Learning beyond school walls:** Students spend up to two full days per week at an internship site. Workplace mentors, along with teachers, help students develop a project that requires deep learning and acquisition of relevant professional skills and knowledge.

**Flexible schedule:** The rest of the school week is dedicated to academic study, advisory meetings, and career exploration. There is no set academic course sequence or schedule; instead, students work toward a personalized set of academic benchmarks each trimester, moving at their own pace and with their own long-term goals in mind.

**Shared expectations:** Educators emphasize the acquisition and application of skills, rather than specific content. They work with students to develop personalized benchmarks, drawing on state-level standards, including the Commonwealth's vocational guidelines, to determine what students should know and be able to do. Benchmarks are revisited each trimester.

**Individual learning plan:** The common thread throughout a student's educational experience is the learning plan developed in ninth grade. The plan—which begins with each student's academic, career, and social-emotional goals and includes their personalized benchmarks—becomes the organizing principal for each student's program of study and a consistent touch point with adults.[83]

**Authentic assessment:** At the end of each trimester, students plan a demonstration of mastery, called an exhibition, where they present what they've learned to school staff, workplace mentors, and family, and reset learning goals for the upcoming trimester. Students also write daily journal reflections on their progress and maintain a portfolio of their work with evidence of meeting their own learning targets.

This highly individualized learning model is time-intensive and has required staff to think about where they spend time and which measures of success matter most. They've also had to allow themselves room to experiment and make mistakes. Most LCE students transition successfully to a job or two-year certificate program upon graduation; staff are still working on supporting students to succeed in more traditional college programs. Staff is already laying the groundwork for program expansion, which will require expanding relationships with local businesses and developing systems to more efficiently track and support student learning. It is a work in progress with very strong promise.

# Priorities for Action: School, District, and State

It is time for the Commonwealth's educators and leaders to look beyond the necessary but limited reforms of recent years to ask how, where, and under what conditions our children learn best. While we know a great deal about what quality student-centered learning looks like and have a number of successful examples in Massachusetts communities, bringing such experiences to scale will require a paradigm shift at every level.

In order to implement the various student-centered practices outlined in Priorities 1, 2, and 3, schools need targeted support and the flexibility to innovate. Here, we outline the state and district policies and practices required to bring student-centered learning into the core of education reform across the Commonwealth.

## State Leaders

1. **Create a fund to support innovation.** Competitive grants can incentivize large-scale change and make it possible. An innovation fund for Massachusetts schools could support the development, implementation, and refinement of new student-centered models, establishing a variety of proof points that can become models of effective practice for the state. These grants—which might combine public and private resources or include a match requirement for applicants—would help schools and districts address short-term startup expenses not typically covered by their budgets, such as improving technology infrastructure. The state could further push innovation by incentivizing vertical cooperation between the early education, elementary and secondary education, and postsecondary education sectors to encourage cross-pollination of best practice.
2. **Develop a catalog of effective models.** The state can create a resource bank of student-centered learning models that meet performance parameters, helping schools and districts make decisions about the programs or providers best suited to local needs. An online database of programs would allow educators to quickly grasp each model's strengths, weaknesses, effectiveness with particular student populations, and ideal conditions for implementation. Additional resources, such as detailed program profiles, would help educators understand the nuts and bolts of each model, including how multiple assessment approaches help students demonstrate mastery. All of these resources would be especially effective for low-performing schools, and may be coordinated by the District Support Assistance Centers (DSACs) for Level 3 and 4 schools.
3. **Align teacher evaluation frameworks.** Districts will need multiple, flexible measures of educator performance to capture teachers' new roles as a facilitator of student learning, and guidance from the state on how to do so. Massachusetts might choose to follow the example of New Hampshire, which has a "shared attribution" system to capture the impact of teachers who work in teams. Guidance is also needed about how to apply existing evaluation standards more flexibly, including those related to student performance measures; schools may want to initiate a school-wide cultural norm around all teachers being collectively responsible for students, followed by changes in practices for which students' progress you are held responsible for (e.g., teachers being responsible for students with whom they work for a certain pre-determined amount of time).

## Districts

1. **Cultivate a portfolio of partners.** Districts that have been most successful in offering student-centered options have often done so with the help of partners. Collaborators can play a variety of roles, from offering in-school and after-school enrichment programs that supplement academic courses to providing expanded learning opportunities like internships. In some districts, external partners are involved in providing programming linked to the core curriculum and for which students receive credit. Increasing the supply of such options offers students more ways to learn important skills and earn credit toward graduation.
2. **Create more autonomy and flexibility for schools.** The student-centered models presented in this report use innovative scheduling and staffing models that can be achieved only with through creative reconfiguring of resources that requires autonomy from typical district guidelines and budget practices. For example, current state regulations require that students be under constant supervision of a certified teacher, and districts (and unions) typically tie funding to specific staff positions and class size policies. To create multi-age grouping and other configurations that lend themselves to student-centered learning, schools need the flexibility to tinker with staffing configurations; in some cases, they set an average class size limit across the school rather than by classroom to allow for flexible groupings throughout the day.
3. **Match resources with student-centered approaches.** Local reforms have a deeper, more lasting effect when local leaders and teachers take time reflect on their progress and align resources accordingly. School communities benefit from opportunities to identify their students' needs and learning challenges, reflect on what they have implemented, and determine the effectiveness of existing approaches in improving student outcomes. Through such a process, school leaders and teachers may find themselves identifying initiatives and policies that are not working and that run counter to student-centered principles. This crucial feedback can help district leaders analyze resource use and determine whether central resources can be better allocated to foster student-centered approaches across schools.

# Conclusion

Massachusetts has come a long way in its reforms over the past two decades but still has significant room for improvement. Student-centered learning offers an important next step, with structures and strategies that more efficiently and effectively address the individual learning needs of diverse students. The student-centered practices we highlight in this report have potential to help Commonwealth schools overcome their remaining challenges, closing persistent achievement gaps and ensuring students who satisfy local graduation requirements also leave high school prepared for college and the world of work.

Schools across the state are already experimenting with student-centered approaches. The three we highlight in this year's report typify the range of strategies being tested with promising early outcomes. There is opportunity to innovate, and for our schools, districts, and the state to learn from these strong examples so that many more Commonwealth students experience learning that is engaging, authentic, personally relevant, and well matched to their needs and aspirations.

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The Rennie Center for Education Research & Policy's mission is to improve public education through well-informed decision-making based on deep knowledge and evidence of effective policymaking and practice. As Massachusetts' preeminent voice in public education reform, we create open spaces for educators and policymakers to consider evidence, discuss cutting-edge issues, and develop new approaches to advance student learning and achievement. Through our staunch commitment to independent, non-partisan research and constructive conversations, we work to promote an education system that provides every child with the opportunity to be successful in school and in life.


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