

## Shaping Our Future Together Frequently Asked Questions

### *1. Why is Vermont taking on such a large change effort?*

To prepare for our future as a community in an increasingly global, complex, and fast-changing society, dramatic change in our educational system is needed. We have left the Industrial Age and mass production, and yet education in most places an assembly line approach to education still prevails. There is broad agreement in our society that change is necessary.

Fortunately, we are not starting from scratch. Perhaps the best way to put it is to say that we are “remodeling” our educational system, much as one would remodel a house. When you remodel a house, you do more than just repaint it: you make substantial changes, keeping the previous shape of the house, but updating old parts, and making the house more modern and efficient.

Right now Vermont’s educational system—like most school systems around the country—must be brought “up to code” to meet the demands of our rapidly changing society. The bad news is that remodeling creates temporary dust, noise, and inconvenience, but the good news is that when you remodel you don’t have to blow anything up—you strengthen what’s working and fix what’s not. It takes some time and patience, but the results will benefit our state for generations to come.

### *2. What kind of “remodeling” are we talking about?*

Some of our remodeling efforts will be structural in nature, for example, creating a late start one morning a week at high school so that teachers can collaborate, which research has shown improves teaching in dramatic ways.

Other changes are meant to ensure that students develop mastery of content and skills, not based on “seat time,” but rather on whether they have learned to the level that will prepare them for post-secondary opportunities.

The role of the teacher will also be changing—from content purveyor to facilitator and guide. Youth will be offered different kinds of learning opportunities, both in and out of the classroom.

Moreover, the role of the community is changing. From partnerships with local businesses that offer rigorous learning experiences for our students, to deep dialogue with taxpayers, faith leaders, and community and civic organizations, the community becomes an important stakeholder in shaping a bright future for our schools and communities.

### *3. What does the research say about learning that we haven’t known previously?*

The changes taking place in Vermont are informed by the most up-to-date theory and research on how young people learn and what makes them eager to learn. One of the important findings from neuroscience and developmental theory is that students learn and demonstrate what they have learned in very different ways. Learning is also enhanced when it is relevant. Learning, therefore, must be *customized or personalized* to the strengths and needs (and interests) of each student. We are exploring ways to put this research into practice in orderly and creative ways that will ultimately benefit all of our students.

In addition, we know that meaningful learning occurs when experiences are more active and hands-on, so we offer our students a range of non-traditional learning experiences such as internships, service learning, job shadowing, and after-school enrichment. Students can demonstrate proficiency of standards through these experiences, which are designed to be at least as rigorous as traditional classroom coursework.

Finally, we know that learning is enhanced when students are able to participate in its design, building greater insight into the learning process, promoting shared responsibility and increased ownership of the outcomes.

#### 4. *What does “proficiency” mean?*

Our 21<sup>st</sup> century economy and society demand that we have a much bigger talent pool of graduates than ever before. All young people must become “proficient”—or thoroughly knowledgeable in a wide-range of subjects. In a proficiency-based system, graduation is based not on how much *time* students have spent in school, but rather, what they can *demonstrate that they have learned*.

Proficiency-based learning also encourages students who have mastered a subject and are ready for new challenges to move forward; students who need extra time to reach proficiency will be given that extra time. Students typically work with their teachers to design how to measure their progress—whether via a test, an exhibition or portfolio, or some other regular form of feedback.

#### 5. *How is this different from tracking, in which students are sorted into ‘smart’ and ‘not-so-smart’?*

We are all “smart” at some things and “not so smart” at other things. Proficiency-based learning is grounded in the understanding that all students can and will learn the same important knowledge and skills needed for future success, but some will take more time and some will need different ways of learning and demonstrating that learning.

In a proficiency-based system, students will know what they need to accomplish to reach proficiency, but they are afforded the opportunity to choose the order in which they want to reach their learning targets and they will also have some say over *how* they will reach proficiency.

6. *What is the history of education reform in Vermont leading up to Act 77?*

Vermont has a long and rich history of education redesign, most recently culminating in the passage of Act 77 in 2013. The roots of this legislation can be traced back to Vermont resident John Dewey, born in Burlington in 1859. He was a dominant figure in American education, founding the progressive education movement nationally and internationally. His belief in the importance of active learning has informed school redesign for the past century.

“High Schools on the Move” (2002) captured “Twelve Principles” of redesign that remain at the heart of this new legislation. This publication was the culminating document of a State Board of Education taskforce that was asked to address, “the critical issues facing Vermont high schools.” Act 44, which followed in 2009, referenced “Flexible Pathways to Graduation” and focused on increasing graduation rates in the state to 100% by 2020. In 2011, the Agency of Education conducted an informal study to further both flexible learning pathways and proficiency-based graduation models, resulting in a “Policy Research Team Final Report”.

Governor Shumlin elevated education redesign as a priority in the 2012 opening session of the Vermont Legislature. This set in motion a two-year process to enact Act 77, which became law in July of 2013. Vermont has one of the most advanced, research-based education agendas in the country.

7. *Can you describe some of the elements of Act 77?*

Yes! Act 77 highlights include:

- real life learning opportunities through internships and other similar hands-on experiences
- A personal learning plan that enables all students to identify their strengths and challenges, and set specific goals for themselves, in partnership with teachers and parents.
- the opportunity to enroll in both virtual and college levels courses while in high school, and
- meaningful career development and post-secondary planning for all students.
- increased access to Career and Technical Education

The following are a set of beliefs that guide this legislation:

- Students are capable of learning and achieving personal success.
- Students' social, emotional, and physical wellbeing are essential aspects of learning and development.
- Positive relationships with caring, competent individuals empower, engage, and motivate learners.
- Learning is enhanced in an environment where risk taking is supported.
- Mistakes are inherent in the learning process.
- Learning occurs in different ways, in different settings, and at different rates.
- Students do best when they influence and manage their own learning.
- Engaging in real-world problem solving prepares students for the future.
- Clear and relevant learning targets, frequent feedback, and continuous reflection are essential for learning.
- Students are expected to achieve proficiency of their required learning targets.
- Citizens are valued partners in the changes in our educational system that will result in the growth of a vibrant and diverse community.

*8. How do you know that these are the right strategies for giving our children a quality education? What are they based upon?*

Recent breakthroughs in technology make research in human biology and cognitive science more relevant for education than ever before. With powerful brain imaging tools, neuroscientists can for the first time study how the brain learns—while it's learning! New technologies in genetics are revealing the complex interactions between a learner's genetic makeup and the external environment, while cognitive scientists are tracking the development of alternative learning pathways. Such advancements have led to the emergence of the field of mind, brain, and education.

So, for example, we know that:

- The brain is continually changing, as learning experiences shape its architecture; students' abilities are always developing. We will be using a variety of ongoing assessments to monitor learning and tailor instruction to promote learning.
- The brain is learning virtually all the time, in both formal and informal contexts. We can capitalize on this through a range of nontraditional learning experiences, such as afterschool enrichment, extended learning opportunities, and service learning.
- The brain changes that underlie learning occur when experiences are active, not passive. Act 77 empowers students to engage in active learning experiences that are relevant to their lives and goals.

- Learning and emotion work together in the brain. Act 77 addresses emotion's central role in education by nurturing positive relationships, teaching emotional regulation skills, and providing shelter from harmful stresses.

*9. I thought that people were born with certain talents and that some folks just aren't good students. Are you saying that this is not the case?*

Perhaps the most important insight for education from the field of neuroscience is that the brain is highly adaptive, a property called "plasticity." As a result of experiences in different environments, students' brains change continuously, from preschool through high school and beyond. Students learn not only at school but also at home, at work, in community centers, and in other settings.

As students engage in various activities—from mastering reading to playing online chess to practicing word processing—these experiences gradually sculpt the physical architecture of their brains.

A significant body of research now contradicts the longstanding notion that individual abilities are fixed at birth. Indeed, the brain's plasticity means that individual abilities develop continuously. The more a student learns in a particular area, the more intelligent the brain becomes in that area.

The continually changing nature of the brain underscores the potentially negative effects of certain traditional educational practices, such as tracking. Sorting students into rigid tracks based on their current levels of ability could deny lower-tracked students the rich learning experiences their brains need to reach their full potential.

*10. Who is responsible for enacting the changes?*

The responsibility for enacting Flexible Pathways and more student-centered practices is shared across many stakeholder groups. Legally and administratively, the responsibility falls to our schools to enact this legislation. The Agency of Education is providing training and support for schools. They are also committed to building public understanding of the redesign process. But we know that for such a large change to happen, we need the engagement of every sector of the community.

*11. How long is it going to take?*

Act 77 became law in July of 2013. Students in grades 7 and 9 will have Personalized Learning Plans by the fall of 2015. By 2018-19, all students in grades 7-12 will have Personalized Learning Plans. Development of work-based and virtual/blended learning opportunities, dual enrollment and early college options are currently underway. Many schools are also establishing or revamping their teacher advisory systems in order to implement Personalized Learning Plans, ensuring that many

adults in the school will be able to serve as coaches and guides. Simultaneously, the state is supporting a large number of high schools as they move toward a proficiency-based system.

*12. Who else is doing this? Who else in New England? Who else in the U.S.?*

Vermont has been at the forefront of national school redesign efforts. The following are but a few of the student-centered innovative programs in Vermont schools currently serving students:

Montpelier High School: Community-Based learning program

Mount Abraham Union: Personalized Learning Department

Northfield High School: Implementation of Personalized Learning Plans

Otter Valley Union: Moosalamoo Program

South Burlington High School: Big Picture School

Twinfield Union: Renaissance Program

U-32: Branching Out Program

Winooski High School: I-lab

A growing network of schools statewide have also been preparing to move toward Proficiency-based learning over the past several years, with the support of the Agency of Education.

In Maine, there are quite a few school districts that are engaged in school redesign efforts. Many of them are a part of the Maine Cohort for Customized Learning (MCCL) a statewide coalition of school systems, organizations, and individuals committed to supporting performance-based education in Maine school systems. <http://mainecustomizedlearning.org/>

Across the New England region, school districts in Pittsfield, New Hampshire, and Burlington/Winooski, Vermont were awarded grants from the Nellie Mae Education Foundation to move toward student-centered approaches to learning.

Nationally, a number of efforts have been underway—some, for many years, and others more recently. For example, The Coalition of Essential Schools (CES) has been at the forefront of creating and sustaining personalized, equitable, and intellectually challenging schools. The CES Network includes hundreds of schools and more than two-dozen Affiliate Centers. They focus on helping all students use their minds well through standards-aligned interdisciplinary studies, community-based "real-world" learning and performance-based assessment.