

This response was prepared for the Education Committees of the Vermont House of Representatives and Senate.

Your Question:

You asked a series of questions about proficiency-based learning:

- 1) Best practices for stakeholder engagement around proficiency-based learning (for teachers and parents including training/professional development for teachers)
 - Are there good examples of how to engage teachers? How about examples of professional development and training for teachers? Is there a best practice toolkit or state examples for engaging stakeholders and/or training and involving teachers?
 - How are states involving parents in the process of adopting proficiency-based learning?
- 2) State practices around transcript notation, proficiency-based learning requirements (is it required for all students), and funding:
 - How are other states attempting to provide consistency amongst districts (for those that have provided levels of flexibility)?
 - What is the cost of implementing proficiency-based learning? Are states providing additional funds for implementation?
 - What are other states (that have proficiency-based learning in some form or another) doing around transcript notation (are they requiring certain specific information to be included in transcripts)?
 - How many states are requiring proficiency-based learning for every student as of this academic year? Many states have pilots or provide districts flexibility.
- 3) Research on student outcomes, impacts on equity and student achievement gap, integration with English language learner programs
 - How does proficiency-based learning affect English language learners? Are there examples where proficiency-based learning has been integrated well with English language learner programs?
 - Is proficiency-based learning effective? Are there data from pilot programs in other states? Is there research on the student outcomes?
 - What are the equity implications of proficiency-based learning? How could it negatively affect students and the achievement gap?
- 4) Postsecondary effects
 - How are colleges responding to proficiency-based learning? Is there more information ECS can provide on college responses, especially that span the different types/sizes of colleges?

We address these questions below, in the order that you asked them. Please note that we use the terms “proficiency-based learning” and “competency-based learning” interchangeably, to reflect different terminology used by different states.

Our Response:

Best practices for stakeholder engagement around proficiency-based learning (for teachers and parents including training/professional development for teachers)

Are there good examples of how to engage teachers? How about examples of professional development and training for teachers? Is there a best practice toolkit or state examples for engaging stakeholders and/or training and involving teachers?

The Aurora Institute (previously iNACOL) published an [issue brief](#) outlining four strategies states can use to prepare educators to teach in a proficiency-based learning system. The strategies are: (1) identifying clear and specific educator competencies for proficiency-based learning, (2) creating multiple, high-quality pathways to educator credentials and development, (3) developing educator professional judgement for student-centered learning, and (4) building assessment literacy. The Aurora Institute [suggests](#) that states can establish clear educator competencies for proficiency-based learning by building a taskforce or commission. The purpose of the taskforce/commission is to engage with educators and education leaders, along with experts in proficiency-based learning, to build systems around educator training and knowledge around proficiency-based learning.

[The Aurora Institute suggests](#) that teacher training, like proficiency-based learning, should have multiple pathways for developing professional expertise in proficiency-based teaching. [The Institute](#) proposes micro-credentials as one method to help educator preparation and development systems become more proficiency-based. According to a CompetencyWorks [Issue Brief](#), some districts provide professional coaching courses and training on proficiency-based classroom design as a way of preparing their teachers to switch to proficiency-based teaching.

Here are some examples of how states support professional development focused on proficiency-based education:

- **Iowa:** A [Competency-Based Education Task Force](#) was formed to study competency-based instruction standards and to develop assessment and professional development models. The task force’s [final report](#) recommended at least two full-time equivalent positions to oversee the creation and implementation of competency-based education and training – including educator development, curriculum development, and strategies for improving the educational environment for educators and students. The report also outlined specific professional development recommendations. The report specified that the Iowa Competency-Based Education Collaboration and the Department of Education were responsible for defining and supporting professional learning districts to help teachers and administrators provide competency-based learning environments.
- **New Hampshire:** The [New Hampshire Learning Initiative](#) (NHLI) is the primary tool available for districts, schools and teachers to develop their skills in proficiency-based education. According to the [New Hampshire Department of Education](#), NHLI can assist with a self-assessment to determine what resources might best fit a school’s needs. The organization also offers learning opportunities that schools and teachers can request to join through the NHLI website.

Several organizations have published reports offering guidance on professional development for proficiency-based learning:

- [Harnessing Teacher Knowledge](#). This resource “is designed to help school administrators, project directors, and teacher-leaders engage in a thoughtful process of self-reflection as they work toward creating a high-functioning professional learning culture in their school.” (Great Schools Partnership, 2011)
- [Preparing Teachers for Deeper Learning: Competency-Based Teacher Preparation and development](#) (Digital Promise, 2014). This report explores the following questions: “If...the goals of American education are being redefined, and the opportunities are expanded with the advent of technology, the Internet and digital content, how must the role of the educator evolve? And, how must teacher preparation and ongoing professional development evolve to fully enable teacher success in this new environment?”

How are states involving parents in the process of adopting proficiency-based learning?

Some states require proficiency-based learning efforts to include engagement of parents and other stakeholders:

- **Florida:** Within [Fla. Stat. Ann. § 1003.4996](#), the proficiency-based education pilot program requires that applications include “A communication plan for parents and other stakeholders, including local businesses and community members.”
- **Idaho:** [Idaho Code Ann. § 33-1632](#) requires the state department of education to “Provide ongoing statewide outreach and communications to increase awareness and understanding of and promote interest in mastery-based education for teachers, administrators, parents, students, business leaders, and policymakers.”
- **Nevada:** [Nev. Rev. Stat. Ann. § 389.230](#) directs the Department of Education to “(a) Conduct a public campaign to raise awareness about competency-based education” and “(b) Conduct one or more meetings with the superintendents of the school districts for the purpose of increasing: (1) Understanding of competency-based education; and (2) Interest in implementing a system of competency-based education.”

State practices around transcript notation, proficiency-based learning requirements (is it required for all students), and funding:

How are other states attempting to provide consistency among districts (for those that have provided levels of flexibility)?

The success of Proficiency-Based learning efforts depends on consistent standards of proficiency. If students in some schools or districts are held to lower standards than students in others, then they could be at a disadvantage when they graduate. In such cases, “proficiency” could lose its relevance to real-world demands for knowledge or skill.

States that pursue proficiency-based learning initiatives typically balance the desire for local flexibility with the need to establish common expectations for student performance. Proficiency-based learning initiatives often give schools and local education agencies the authority to define proficiencies, while expecting them to align those proficiencies with state academic standards.

- **New Hampshire** evaluates the rigor and comparability of its pilot competency-based assessment system. The state’s [Performance Assessment for Competency Education \(PACE\)](#) is “a first-of-its-kind pilot” that aims to measure proficiency more reliably while connecting local assessments to state assessments. Local educators develop and administer common performance tasks aligned to local district course competencies, which are, in turn, aligned to state and national standards.
 - The pilot includes provisions to ensure that students’ work is double-scored, and to test the consistency of those scores across different evaluators and across time. Results on PACE assessments are also compared with the state assessment to ensure consistency. Internal and external studies suggest that, by and large, scores on PACE assessments have been consistent and comparable from one evaluator to the next.
 - Still, the nonprofit Education Reform Now [cautions](#) that such measures to ensure the comparability and validity of the tests could become more difficult to enforce in a statewide implementation. The nonprofit urges the state to pay close attention to “inter-rater reliability” from class to class or district to district. In other words, the state should monitor the extent to which results are consistent regardless of who scores the test, where they score it or when they score it.
- States can support professional development that helps educators hold students to high and consistent expectations statewide. Such professional development can help educators develop performance tasks that align to state standards and then assess students’ performance of those tasks. Districts that applied to join **Illinois’s** competency-based education pilot had to [develop plans](#) for professional development to help educators effectively assign course grades and assess student progress under a competency-based learning plan.

Even without state guidance, local education agencies can undertake similar work to ensure that they apply proficiency standards in a consistent way. For example, in 2018 the Los Angeles Unified School District in **California** [reviewed](#) more than 120 project-based learning assignments across its schools and found that the rigor of those assignments was inconsistent from one assignment to the next. That finding prompted district leaders to offer professional development in developing rigorous project-based learning assignments that measure up to common expectations.

For more information on the potential for teacher professional development to support common expectations, see Achieve, [Competency-Based Policies and Pathways: Lessons from Colorado and Illinois](#), p. 7.

What is the cost of implementing proficiency-based learning? Are states providing additional funds for implementation?

There is unfortunately no consistent formula for calculating the cost of implementing proficiency-based learning across a state. Thoroughly implementing proficiency-based learning may require resources for educator professional development, developing performance tasks, creating valid and reliable proficiency standards, engaging the public in plans for proficiency-based learning, or redesigning school transcripts (among other areas). [Media accounts](#) of **Maine’s** decision to back away from its proficiency-based learning requirements cite [inadequate funding](#) as one reason for the state’s difficulties.

Most states that promote proficiency-based learning do so through grants or other funding for pilot programs. For example:

- **Utah's [Competency-based Education Grants program](#)** (Utah Code [§ 53F-5-502 to § 54F-5-505](#)) has provided funding for [planning grants](#) (maximum \$100,000 per local education agency), [implementation grants](#) (maximum \$400,000 per local education agency) and expansion grants for competency-based education initiatives.
- **Idaho [House Bill 110](#)** (2015) [provided funding](#) for schools and districts to plan and implement mastery-based education initiatives: \$400,000 in 2015/2016; \$1.4 million in 2016/17; and \$1.4 million in 2017/18. According to a January 2019 [Idaho Mastery Education Progress Report](#), the funds were spread across 21 schools and districts in 2017/18, and some of those districts reported anecdotal evidence of success.
- **New Hampshire** funded its PACE pilot with about [\\$300,000 per year](#) for its first three years. About half of the funds came from private philanthropic sources, and the balance came from federal and state sources.
- **Iowa's** Competency-based Education Grant Program provided school districts \$100,000 to create, implement, and evaluate competency-based education pilot programs ([IA Code § 256.24](#)).

States have also supported proficiency-based learning by supporting technical assistance and competency-based education collaboratives that “allow actors outside a particular district to contribute to that district’s reform efforts through contractual agreements or voluntary participation.” For more information on these modes of support, see [Overview of selected state policies and supports related to K–12 competency-based education](#) (US Department of Education, Institute of Education Sciences, 2017), pp. 12-14.

What are other states (that have proficiency-based learning in some form or another) doing around transcript notation (are they requiring certain specific information to be included in transcripts)?

States that support proficiency-based learning have diverse approaches to high school transcripts. Some publish specific requirements for what information transcripts should feature. Others encourage schools and districts to join consortia dedicated to designing innovative proficiency-based transcripts. Still others do not offer specific guidance on what to include in proficiency-based transcripts.

- **Indiana**, which ([according to the Aurora Institute](#)) offers “state policy flexibility for school districts to transition to competency education,” [requires](#) course codes, course grades and GPA to appear on high school transcripts. The state specifies that “credits earned through a virtual environment, credit recovery situation, or credits earned by demonstration of proficiency... should be noted in the same way you would record classes taken traditionally as long as they cover the respective content in the Course Description and Academic Standards. No additional notations should appear beside these courses since students had to have met course standards in order for credit to be awarded.”
- **Washington State**, which ([according to the Aurora Institute](#)) offers “limited state policy flexibility” for competency-based education, has [guidelines](#) for how to record competency-based credit on transcripts: “If high school credit is awarded on a competency basis as authorized under state board of education policy [WAC 180-51-050](#) (2), the district may use either of the following options for noting the students' performance on the state standardized transcript under [WAC 392-415-070](#): (a) Determine locally the equivalent passing mark/grade as listed under subsection (1) of this section; or (b) Designate ‘pass’ or ‘fail’ or ‘no pass’ in the appropriate manner on the transcript.” The guidelines recommend providing grades rather than merely indicating pass or fail.

- **Colorado**, which the Aurora Institute [characterizes](#) as an “advanced” competency-based education state, requires high school students’ final transcripts to include scores on the SAT, the state’s college entrance exam ([C.R.S. 22-7-1016 \(2\) \(b\)](#)). At least one state legislator has [opposed](#) that requirement.
- **New Hampshire** specifies that “graduation requirements met by interdisciplinary learning opportunities must be clearly designated on student transcripts, and the high school principal may approve a particular interdisciplinary course if s/he determines the course has been adopted by a faculty team, and the course addresses equivalent district or graduation competencies for the subject areas covered by the course” ([N.H. Code Admin. R. Ed 306.27](#)).
- **Utah**, another “advanced” competency-based education state, gives districts and schools that receive Competency-Based Education Grants a [free membership](#) in the [Mastery Transcript Consortium](#), “a growing network of public and private schools who are introducing a digital high school transcript” that focuses on competencies rather than on traditional indicators like A-F grades and credits.
- **Utah** code ([§ 53F-5-506](#)) also explicitly protects students from being penalized for participating in competency-based education programs. It requires institutions of higher education in the state to “recognize and accept on equal footing as a traditional high school diploma a high school diploma awarded to a student who successfully completes an educational program that uses, in whole or in part, competency-based education.” In addition, it stipulates that students who transfer from a local education agency that uses competency-based education to one that does not “may not be penalized by being required to repeat course work that the student has successfully completed, changing the student’s grade, or receive any other penalty related to the student’s previous attendance in the competency-based education program.”

Research on student outcomes, impacts on equity and student achievement gap, integration with English language learner programs

How many states are requiring proficiency-based learning for every student as of this academic year? Many states have pilots or provide districts flexibility.

Few states require that every student participate in proficiency-based learning:

- **New Hampshire** code states that “Credits shall be based on the demonstration of district and or graduation competencies, not on time spent achieving these competencies” ([N.H. Code Admin. R. Ed 306.27](#)). The state now awards credit for demonstrated competency rather than seat time.
- **Maine** [adopted, but later rolled back](#), a policy requiring all students to participate in proficiency-based learning. Participation is now voluntary for districts and schools.
- **Rhode Island** has [Proficiency-based Graduation Requirements](#), “where proficiency is defined as a level of knowledge and skills that are expected to be learned signaling that a student is well prepared to progress to the next lesson, grade level, or to receive a diploma.” Rhode Island’s 2016 [Secondary School Regulations](#) require schools to use PBGRs to gauge students’ readiness to graduate. “For the purposes of graduation, proficiency is not based on a particular test, but rather demonstrated through successful completion of coursework and the performance based diploma assessment (senior project, portfolio, capstone product, or exhibition).”

This does not mean that every student in New Hampshire and Rhode Island experiences proficiency-based education in its most developed form. Studies of schools that have ostensibly embraced proficiency-based learning find that many do not fundamentally change their teaching practices. (See our response to your question about research, below.)

How does proficiency-based learning affect English language learners? Are there examples where proficiency-based learning has been integrated well with English language learner programs?

There is little research on how proficiency-based learning affects English language learners. Proponents of proficiency-based learning [argue](#) that it can give schools more flexibility to meet English learners where they are, adapt instruction accordingly and offer instruction at students' own pace. (See, for example, two publications from the Aurora Institute: [Next Generation Learning Models for English Language Learners: Promising Practices and Considerations for Teaching and Learning](#) (2017); and [Personalized, Competency-Based Education for English Language Learners](#) (blog post, 2018)).

Proficiency-based learning initiatives may have to balance the need to give English learners more time to reach proficiency against the pressure to ensure that those students' educations do not take too much time. A [recent case study](#) of Lindsay High School, a California high school with a large population of English learners, noted "challenges and opportunities in the trade-offs between pace, amount of learning per year, and the steepness of the trajectory." In some cases, English learners may truly need five or more years to complete high school, and proficiency-based learning systems can provide them more flexibility to take the extra time. That said, students who take too much time completing their studies can be at a disadvantage.

Is proficiency-based learning effective? Are there data from pilot programs in other states? Is there research on the student outcomes?

There is only limited research on the effectiveness of proficiency-based learning, and most research focuses on how faithfully such initiatives are implemented, rather than on their impact on students' performance. Studies have found that many schools and districts fail to implement proficiency-based learning initiatives faithfully. On the other hand, studies have also found that faithful implementation can improve student engagement in learning.

- The Education Development Center conducted a prominent study of proficiency-based learning in **Maine—["In Theory It's a Good Idea": Understanding Implementation of Proficiency-Based Education in Maine](#)** (2018). This study found that many students in the state did not encounter many proficiency-based learning strategies, even though their schools had embraced proficiency-based learning theories. Researchers found that teachers were so focused on creating new graduation requirements and grading systems that they had less time for changing their teaching practices: "If the focus were more squarely on shifts to instructional practices rather than on changing grading and graduation practices, teachers would have a clearer sense of how they should do their job differently, rather than simply fitting the new grades onto the old model. In addition, if the focus were on shifting instructional practices, it is possible that the community reaction and support for the reform effort would be more positive and would allow for a more authentic shift to the types of practices that are in keeping with the philosophy behind PBE." By some measures, however, students who did experience such proficiency-based learning practices became more engaged in their learning.

- Two studies by RAND found weaknesses in the implementation of proficiency-based learning among pilot schools that received grant funding to support it:
 - A study of [Competency-Based Education in Three Pilot Programs](#) (2014) found that the sites struggled with aspects of implementation. They experienced challenges in creating common definitions of proficiency, determining how to award credit for learning outside of schools, and establishing technology to support students' access to online instructional tools. According to researchers, programs that gave students choice of what topics and materials they would study experienced the best student outcomes, but they cautioned that their research could not identify the cause of these outcomes with any confidence.
 - [Informing Progress](#) is a 2017 study of schools participating in the [Next Generation Learning Challenges Initiative](#), an effort to support personalized learning, which includes competency-based education practices. The study found that the schools "were implementing specific P[ersonalized] L[earning] approaches to varying degrees, with none of the schools looking as radically different from traditional schools as theory might predict." It uncovered "suggestive evidence that greater implementation of PL practices may be related to more positive effects on achievement," but it cited the need for more research to determine the impact of these practices.
 - [Looking Under the Hood of Competency-Based Education](#) (American Institutes for Research, 2016) studied the implementation of competency-based education in high schools participating in the [Innovation Lab Network](#), facilitated by the Council of Chief State School Officers. Like the EDC and RAND studies, this study found that implementation was very inconsistent among schools that reported using competency-based education practices. These practices include establishing clear learning targets, requiring students to show mastery of learning, receiving instruction in a variety of formats, participating in school-related work outside of the school building or school day, nontraditional assessments (such as project-based assessments), and extra time or retake opportunities. The study found "promising evidence that students' experiences of specific C[ompetency]-B[ased] E[ducation] practices are indeed associated with positive changes in learning dispositions, skills, and behaviors."

What are the equity implications of proficiency-based learning? How could it negatively affect students and the achievement gap?

Again, there is little research on the implications of proficiency-based learning on equity. Champions of proficiency-based learning note that, at its best, the strategy encourages schools to attend more closely to students' individual learning needs while aiming to help every student reach proficiency. Traditional systems, they argue, often promote students who receive course credit but never truly achieve proficiency. These students find themselves at a disadvantage after they leave high school.

However, struggling students may fall farther behind in systems that allow them to learn at their own pace. As a [2014 report](#) by Achieve notes, "Without attention paid to risks to equity, competency-based pathways could have negligible effects on persistent disparities in performance among students by race/ethnicity, income, special education and ELL status. Far worse, it also could open up new achievement gaps – ones not based on different levels of performance but on the time it takes to reach standards, if different groups are moving at disproportionately slower paces through the content."

RAND's [2017 study](#) of competency-based education also noted this challenge: "Especially in sites emphasizing flexible pacing and proficiency-based evaluation, some teachers reported slow progress among students who struggled academically."

Postsecondary effects

How are colleges responding to proficiency-based learning? Is there more information ECS can provide on college responses, especially that span the different types/sizes of colleges?

Unfortunately, there is not much rigorous research on how colleges and universities are responding to proficiency-based learning. That said, dozens of postsecondary institutions have publicly pledged to accept proficiency-based transcripts. Some states encourage or require postsecondary institutions to accept such transcripts. Finally, in focus groups and interviews, admissions staff said they would not penalize students for proficiency-based transcripts, but they urged schools to be as clear as possible about what their transcripts aim to communicate.

In the Northeast and in Delaware, dozens of postsecondary institutions have issued statements stating that students with proficiency-based grades and transcripts will not suffer any disadvantage:

- [Eighty-five postsecondary institutions](#) in New England, including selective colleges and universities, provided "statements and letters stating—unequivocally—that students with proficiency-based grades and transcripts will not be disadvantaged in any way."
- The Rodel Foundation in **Delaware** organized an effort in which all Delaware colleges and universities issued similar [statements](#) attesting that they will readily accept competency-based transcripts.

States can also require representatives from postsecondary institutions to be involved in proficiency-based education efforts:

- **Nevada's** Assembly Bill 110 on competency-based education [calls for](#) the creation of a competency-based education network that would include "the Chancellor of the Nevada System of Higher Education or his or her designee" and "the Chancellor of Western Governors University Nevada or his or her designee."
- **Utah** code specifies that an institution of higher education should cooperate with a local education agency "as requested, in the development of an LEA plan or program" participating in the Competency-Based Education Grants. ([§ 53F-5-506](#))

In two small qualitative studies, admissions staff said they would not penalize students for proficiency-based transcripts, but they urged schools to be as clear as possible about what their transcripts mean

- A recent (2018) [qualitative study](#) featured interviews with admissions officials at two large state universities, one mid-sized state university and one mid-sized private university – all in the Midwest. The study found that:
 - Admissions officials were frustrated by traditional transcripts, which suffered from inconsistent standards and grade inflation.
 - They generally support the idea of reporting both "academic and personal behavior grades."

- They appreciate transcripts that convert proficiency-based measures to letter grades with GPAs, because such conversions increase their efficiency. It takes more time to interpret proficiency-based transcripts, and that can be a challenge for institutions that receive many thousands of applications.
- They want clear explanations to accompany transcripts—and it can help if high school counselors are ready to explain transcripts clearly.
- A [2016 meeting](#) of admissions leaders from selective institutions in New England resulted in the following “Key Takeaways”:
 - “Holistic review allows admission professionals to carefully consider each applicant in his or her individualized learning environment.”
 - “Proficiency-based transcripts and school profiles should explain what learning standards mean within the context of the particular high school.”
 - “The inclusion of habits of work and cross-curricular knowledge and skills on proficiency-based transcripts and school profiles are particularly useful to admission leaders.”

The [XQ Institute](#) notes that many scholarship programs still use GPA or class rank in their selection processes, which could encourage schools to convert proficiency-based measures to these more conventional measures.