The modern American high school, one of our most fundamental national institutions, emerged more than a century ago. Many of the original defining features, such as age-based grouping, were criticized from the start. Now, as we grapple with the greatest challenge of our current era—preparing all students from all backgrounds for college and careers—many people are taking another hard look at our old assumptions about the best ways to organize K-12 education, particularly at the high school level.

Competency education is attracting significant interest for its potential to resolve many of the conundrums of the hundred-year-old “factory model” of the American high school. In competency-based school systems, students no longer spend a standard amount of “seat time” in classes with their age-based cohort. Rather, students of the same age may learn at different rates in different subjects, progressing to more advanced work as they demonstrate that they have mastered the material. Teachers provide customized supports to match each individual’s learning needs and focus on helping everyone to reach proficiency. Students can no longer receive “passing grades” and graduate with large gaps in knowledge and skills.

At a time when our national priority is preparing all students from all backgrounds for college and careers, competency education deserves careful consideration. This paper lays a foundation for assessing the potential of competency-based approaches, as they currently exist and as they could eventually evolve. Competency education is one important part of a broader vision of education reform that places students at the center of their learning. The reforms explored in this paper—together comprising a personalized approach to competency education—have the potential to help narrow achievement gaps and better prepare all young people for life after graduation.

**THE PRESENT: COMPETENCY EDUCATION IN THE CURRENT CONTEXT**

There is growing interest and investment in a modern version of competency education. In the past decade, 42 states have granted public schools the flexibility to incorporate and explore competency-based policies, and a few states have moved beyond experimentation. Proponents are implementing a range of programs, from competency-based options within a school to district-wide efforts. The federal government also has encouraged competency education, and several major educational foundations are funding expansion and research. While most programs are too new to have a long track record, early adopters are showing some signs of success.
Today’s demand for competency-based reform efforts can be traced to a confluence of three main drivers of change. First and foremost, the interest is fueled by the expanding global economy, which has transformed the U.S. labor market over the past decade. Determining how to help all students reach the goal of college and career readiness in order to find family-supporting work has been the subject of intense debate. Secondly, approaches to educational reform that have often been at odds—the standards movement and the personalization movement—are now coming together and raising interest in competency education as a part of the solution. Competency-based approaches now embrace both the central importance of clearly defined college- and career-ready proficiency standards for all, and the need for strategies to reach these standards that meet the individual needs and interests of each learner. Finally, the ongoing development of advanced technological tools makes it feasible to implement competency education on a large scale for the first time.

A DEFINITION

Competency education is an evolving field and as such, there is no universally shared definition of what makes a model “competency based.” Looking across different competency models and definitions, we identify three basic common elements:

1. **Mastery:** Students advance based on demonstration of skills and content knowledge as outlined in clear, measurable learning objectives.

2. **Pacing:** Students progress at different rates in different areas, rather than on a teacher-driven, class-wide schedule.

3. **Instruction:** Students receive customized supports to ensure that those struggling in any area will be able to reach mastery.

Today’s competency-based models also frequently include features incorporating high degrees of personalization, to foster engagement, motivation, and responsibility for one’s own learning. Personalized approaches to competency education are distinguished by many of the following qualities:

- **Competencies:** Learning objectives reflect research on college, career, and civic success, including cognitive, metacognitive, and interpersonal skills.

- **Assessment:** Multiple measures are used to determine mastery, and students receive immediate feedback about their progress toward specific competencies.

- **Time:** Flexible uses of time encourage learning experiences outside of the traditional school day and year, and in a variety of formal and informal settings.

- **Agency:** Learners have opportunities to exercise choice in how they engage with core concepts and demonstrate core competencies.

- **Technology:** Schools and students use technological tools in service of flexible and engaging instruction and to ease implementation challenges.

- **Culture:** School leaders and teachers foster an education environment that includes high expectations, transparency of learning objectives and assessment, collaborative learning and leadership, continuous improvement, and opportunities for students to learn meaningfully with peers and form relationships with supportive adults in order to maximize motivation, engagement, and achievement.

THE PAST: THE ROOTS OF COMPETENCY EDUCATION

Efforts to ensure that schooling emphasizes outcomes (learning) more than inputs (class time) have deep historical roots. But for the most part such experiments did not result in widespread adoption of competency education.

Competency education is one important part of a broader vision of education reform that places students at the center of their learning.
One of the first significant experiments took place in 1919 in Winnetka, Illinois, where for at least half of the school day, students progressed at their own rate in reading, writing, and counting, and needed to master a “work unit” before progressing. In the 1950s and 60s, researchers advocated for a dynamic school curriculum, that drew on clear objectives and the needs and interests of students, while providing flexibility on pace of learning. The 1970s and 1980s were a heyday for mastery learning and extensive evaluation found significant gains in student learning outcomes.

Despite a long history and strong evidence of its value, widespread adoption of mastery learning has faced significant obstacles. Some of the criticisms voiced in the 1970s have been addressed today, such as a lack of commonly recognized, highly specific educational goals and scarcity of diagnostic, assessment, and progress tracking tools. Other challenges may remain: few high-quality and tested remediation models for students who advance more slowly; and lack of teacher time, energy, and skills and support to apply the model effectively.

THE RESEARCH

In addition to learning lessons from past efforts, today’s practitioners and champions of competency education can draw from recent research into student-centered learning approaches to inform and strengthen their efforts. Relevant findings on learning, motivation, peer interactions, and assessment from Jobs for the Future’s papers and other sources show how lessons learned about effective educational strategies can be integrated into competency-based models that result in deeper learning outcomes for all students. We summarize the major findings in the table below.

THE PROMISE

Competency education is currently one of the hot “innovation spaces” in education reform. Ensuring that these efforts are more lasting and widespread than previous mastery-based efforts will require both learning from the factors that historically limited their growth and infusing the field with new research-based strategies and tools to motivate the full range of students. It will also be essential to navigate the many political and implementation challenges facing personalized competency education.

The political appetite for making policy shifts necessary for a competency-based system to thrive depends heavily on the direction of major issues dominating today’s national education landscape. Some of the most critical political and policy questions are:

- What will help the competency education movement to be seen as supporting efforts to establish high-quality state standards rather than distracting from them?
- How can we ensure assessments are useful to both teachers and students, are student-centered, and are available at a reasonable cost?
- How will schools be evaluated and held accountable for student progress in a competency-based system where time is a variable?

<table>
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<tr>
<th>RESEARCH FINDING</th>
<th>IMPLICATION FOR PERSONALIZED COMPETENCY EDUCATION</th>
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<tbody>
<tr>
<td><strong>Cognitive sciences:</strong> The brain must be actively engaged to learn; passive experiences do not trigger learning.</td>
<td>Prioritize active, engaging learning experiences relevant to students’ lives and goals.</td>
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<td><strong>Motivation theory:</strong> Students are motivated in different ways at different times. Customization is better than teaching to the mythical “average” learner.</td>
<td>Customize instruction, pacing, and supports to accommodate individual differences. Students can move ahead in some academic areas, while receiving extra help in others.</td>
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<td><strong>Student agency:</strong> Allowing students choice and control can increase their achievement.</td>
<td>Give students a sense of control over their learning by through individualized, transparent paths to proficiency.</td>
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<td><strong>Social aspects of learning:</strong> Belonging to a “community of learners” can offer positive results for young people.</td>
<td>Allow flexibility for students to “think aloud,” get feedback, and build knowledge together.</td>
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<td><strong>Balanced assessment:</strong> Well-designed assessments are individualized, motivating, and allow students to regulate their own learning as well as provide summative data.</td>
<td>Offer a variety of formative and summative assessments, and wherever possible, individualize assessments to focus on each student’s strengths, needs, and interests.</td>
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What is needed to protect the “innovation space” for competency education in the face of numerous and sometimes onerous competing demands?

In order to scale personalized competency education from a few promising examples to a transformation of public high schools, much more must be known about the issues highlighted here. Fortunately, the growing number of competency-based schools and programs are beginning to yield some answers and insights. As the frontline innovators continue to improve and make their models more personalized and rigorous, we look forward to being part of building the knowledge base that informs this movement.

ENDNOTES

1 These approaches may also be called competency-based, proficiency-based, mastery-based, or performance-based education: http://edglossary.org/competency-based-learning

2 Students at the Center, an initiative of Jobs for the Future, presents evidence concluding that students are more engaged, more motivated, and achieve better learning outcomes—including the skills, knowledge, and expertise needed for success in college, career, and civic life—under four key conditions: education is personalized to their needs; they can advance upon mastery of clear learning targets; they have a range of learning opportunities in and out of school; and they have voice, choice, and agency in their learning experiences (R. Wolfe, A. Steinberg, & N. Hoffman, eds. 2013. Anytime, Anywhere: Student-Centered Learning for Schools and Teachers. Cambridge, MA: Harvard Education Press.).

3 See the CompetencyWorks wiki page “Examples of Competency-Based Schools and Districts”: http://competencyworks.pbworks.com/w/page/67552887/Examples%20of%20Competency-based%20Schools%20and%20Districts

4 However, many advocates of the aspirational personalized competency approaches seem to be coalescing around the CompetencyWorks five principles of competency education: http://competencyworks.pbworks.com/w/page/67945372/Detailed%20Definition%20of%20Competency

JOBS FOR THE FUTURE

Jobs for the Future works with our partners to design and drive the adoption of education and career pathways leading from college readiness to career advancement for those struggling to succeed in today’s economy. We work to achieve the promise of education and economic mobility in America for everyone, ensuring that all low-income, underprepared young people and workers have the skills and credentials needed to succeed in our economy. Our innovative, scalable approaches and models catalyze change in education and workforce delivery systems.

WWW.JFF.ORG

Students at the Center—a JFF initiative—synthesizes and adapts for practice current research on key components of student-centered approaches to learning that lead to deeper learning outcomes. Our goal is to strengthen the ability of practitioners and policymakers to engage each student in acquiring the skills, knowledge, and expertise needed for success in college, career, and civic life. This Jobs for the Future project is supported generously by funds from the Nellie Mae Education Foundation and The William and Flora Hewlett Foundation.

WWW.STUDENTSATTHECENTER.ORG

This report was funded by the Nellie Mae Education Foundation.

The full report is available at www.studentsatthecenter.org/past-and-promise