10 COMPETENCY-BASED LEARNING DESIGN CHOICES

For more information, see the full report “The Shift from Cohorts to Competency,” available at:
10 Design Choices
There is no single right way to do competency education. Even with the constraint of operating in the traditional time-based policy context, there is a great deal of variation in the design choices that districts and schools are making as they shift to competency education. Furthermore, there is much room for realigning resources around learning that is so far untapped. Below are a few of the design choices that schools are making to organize students, educators, and resources to support student progression through the K-12 system. We take the liberty to propose other design choices that may develop as we become more accustomed to thinking beyond the traditional system.

1. Structure: The traditional system uses age-based grades to create cohorts of students that flow through the system. Schools are generally organized into K-6 (although sometimes K-8), -8, 9-12, and post-secondary. This division is primarily based on child and adolescent development issues. There is now greater fluidity between high school and college with AP, dual enrollment, and early college. Competency-based schools focus on optimizing learning and performance rather than age.

   - Casco Bay High School uses grade-based cohorts to enhance a learning community formed among students working together over four years.

DESIGN PRINCIPLES:

- **Mastery**: Students advance upon mastery.
- **Objectives**: Competencies include explicit, measurable, transferable learning objectives that empower students.
- **Assessment**: Assessment is meaningful and a positive learning experience for students.
- **Differentiation**: Students receive timely, differentiated support based on their individual learning needs.
- **College & Career Ready**: Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions.
- **Grading**: The traditional system uses age-based grades to create cohorts of students that flow through the system.
- **Progression Upon Mastery**: Competencies are earned rather than based on age or grade level.
- **Assessment & Progress Tracking Systems**: Assemble information from multiple sources to provide personalized feedback.
- **Support**: Timely, differentiated support based on individual learning needs.
- **Opportunities to Learn**: Broad range of learning experiences to support individual needs.
- **Annual Calendars**: Flexibility to adjust calendars to maximize learning.
- **Degree of Choice**: Students have options to pursue personal interests and goals.
or grade. Extra credit activities that have no relation to the standards do not impact the grade.

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3. **Support**: The traditional instructional model provides support when students are already failing. Students can go for weeks at the beginning of a course without getting extra help. Homework and tests may come back with a grade but no helpful feedback, and often by the time it is returned the teacher has moved on to other material. Students may be required to go to summer school or be retained for an entire year without individualized plans that help them become proficient. The good news is that we have already seen schools begin to adopt competency-based approaches, particularly with early reading programs that leverage teams of teachers, classroom aides, and literacy coaches to provide differentiated instruction with frequent diagnostic assessments that measure student skills. This same approach can be enhanced using modern technology tools to even better personalize instruction and ensure students are receiving the right supports and interventions in real time.

In competency education, schools organize resources to keep students on their learning edge. Knowing that all students will struggle at some point, they embed time for extra help.

• **Kennebec Intra-District Schools** in Maine uses a 0-4 grading scale; all students are expected to reach at least 3 on all learning targets before they progress.

2. **Grading**: The grading philosophy is one of the most important decisions, as it defines how students understand what is needed to be successful, but it’s really the promotion policy that is most important. When students are allowed to progress with C’s and D’s, it typically indicates that they haven’t mastered the content. Districts have learned that it is very important to invest in helping parents, communities, and colleges understand new grading systems and the decisions and interventions triggered by the grades.

• **Adams 50** has maintained elementary, middle, and high schools with 12 levels to indicate where students are on the learning progression.

• **Diploma Plus** uses three performance levels – the Foundation Phase, the Presentation Phase, and the Plus Phase – which provide greater opportunity as students build foundational skills and demonstrate maturity.

• **San Francisco Flex** is an online high school that provides onsite support. Each student can decide what courses to work on and moves at their own pace.

• At the **Alliance Technology and Math Science High School** in Los Angeles, 48 students rotate through three stations within core subject classes: teacher-led, online, and collaborative instruction.

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• In **Federal Way, Washington**, students must pass the course or class with a grade of C or better in order to advance to the next level or grade. Extra credit activities that have no relation to the standards do not impact the grade.

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Many examples of benchmark competency-based practices can be found in Florida Virtual School (FLVS) courses. FLVS builds its courses around the concept of assessment against competencies and a consistent thread of competency education factors.

Self-Assessments: In the self-assessment, learners can manage their own mastery level and take appropriate action to relearn skills before attempting a formal assessment. Students are able to “own” their learning and work on what they actually need to do, compared to a traditional school, where a student will sit through a lesson with the rest of the class even if they don’t individually need it.

Multi-Source Assessments: Students receive feedback from multiple sources, including pre-tests, formative assessments throughout the lessons, and summative assessments. FLVS teachers also complete discussion-based assessments in each unit of study. Teachers verbally assess for mastery before students can move on to the next module, which ensures a deeper understanding in subjects that build upon previous knowledge, such as foreign languages or math. The teacher is the gatekeeper, who only allows the students to move on when mastery is demonstrated through work products and discussions. Students also have some group projects that provide opportunities for them to work together and build knowledge collaboratively.

Individual Learning Plans: FLVS has worked hard to have effective Learning Management Systems. The systems permit students to identify their progress compared to course goals, personally established time-line goals, and skills identified for mastery. They can continually monitor their own success and gaps in progress.

Learning Resources Catalogued by Competency: Most courses have pre-tests at the beginning of each module, which consist of a variety of questions that are grouped by competency. When students demonstrate mastery of a group of pre-test questions, they are then exempted from the corresponding lesson and assessment. This allows them to spend more time on weaker areas. This prescriptive model is overseen by the teacher, who completes a discussion-based assessment with the student prior to exempting lessons to ensure a deep conceptual understanding.

4. Progressing Upon Mastery: Competency systems use a variety of gateways to manage progress and matriculation. Depending on the flexibility that has been built into the systems, competency education can offer progress within a course or into higher-level courses. Some schools use a myriad of small gateways, while others focus on major demonstrations of learning every two or three years. We have yet to open up the institutional structures that allow students to soar.

- Adaptive software tools allow students to progress in their learning.
- To advance at Cornerstone Charter School and Carpe Diem, students must be able to show mastery through a system of assessments including standardized tests, data harvested from online activities, and real-world challenges and self-assessments. At Cornerstone, virtual data dashboards provide anytime,
anywhere access to student progress. Those dashboards are reviewed weekly with advisors (called “relationship managers”) to help students reflect on their work.

- At Schools for the Future in Detroit, students move at their own pace toward graduation through four performance levels: Core 1, Core 2, Transitions, and Pathways.
- Schools in the National Center for Education and the Economy’s Excellence for All network use credentialed exams as gateways so that students can take the exams when they are ready, and have multiple opportunities to pass them.

5. **Annual Calendars:** To create more time for students who need it, many competency systems move toward a year-round calendar. Time between sessions can be used for enrichment or extended learning time.

- Florida Virtual School serves 400,000 part-time students with year-round rolling enrollment courses.
- Boston Day and Evening Academy creates weeklong intensive sessions to apply learning and for teachers to better assess how students are applying skills.
- Next Generation Schools stagger teacher vacations to have more time for student learning.
- Many schools use a balanced calendar that has four sessions of 45 days with 15- to 30-day breaks in between for students to spend on extra practice or enrichment work.

6. **Courses:** In general, schools are continuing to use the course structure to indicate a unit of learning. The organization of the courses and the degree of modularity may vary based on the school calendar and the degree of importance the school design gives to curricular themes.

- Building upon the Common Core math standards, which are designed to facilitate modular approaches, schools use a block approach in which students are working individually or in small groups in various courses.
- Virtual Learning Academy has shifted from credit recovery to competency recovery.
- Boston Day and Evening Academy uses flexible trimesters.
- The Schools for the Future Curriculum is designed with 30-day modules, shorter mini-courses, and a 30-day progress review cycle.

7. **Degree of Choice:** Competency education enables more student voice and choice, because the competencies and rubrics are agreed upon ahead of time.

- Schools that have organized themselves around strong themes (such as the International Studies School Network) or schools that are providing the shortest route to a high school diploma (such as Boston Day and Evening Academy) may choose to offer very a well-developed curriculum but fewer course choices.
- Online schools provide choices well beyond what traditional schools can provide.
- Schools can offer students choice within courses as well. In the districts participating in the Maine Cohort for Customized Learning, such as MSAD 15 in Gray-New Gloucester, blended learning offers students the ability to select curricular tasks and options for how they want to demonstrate their learning.
8. **Degree of Interconnectedness:** Some schools continue to use specific domains to organize their courses, while others turn to interdisciplinary courses and projects.

- Denver Center for International Studies, a member of the ISSN, uses global education as an organizing theme to shape its curriculum.
- **ACE Leadership** uses the context of architecture, construction, and engineering to design projects that are rooted in real-world industry challenges and designed to help students build up their competencies.

9. **Opportunities to Learn:** There has been an explosion of opportunities for students to learn. The competencies and learning targets that make up learning progressions allow schools to offer a variety of ways to deliver instruction, perform curricular tasks, and demonstrate student learning.

- Open education learning resources include math videos from Khan Academy, free textbooks from CK12, and Massively Open Online Courses (MOOC) from leading universities. It is possible for anyone with a broadband connection to learn almost anything, anywhere.
- **New Hampshire’s state policy** empowers students to draw on real-world experiences to build skills and demonstrate learning. Teachers validate learning using the same rubrics as they would for classroom-based instruction.
- In dynamic job categories like web design, demonstrated skill can earn a badge from the P2PU School of Webcraft. Portfolios and recommendation systems are also emerging that market similar strategies.
- Adaptive instructional software is becoming more sophisticated, and provides rapid feedback and rich analytics. Blended models, such as Matchbook Learning and Rocketship schools, are using adaptive software to provide underserved students opportunities to work at their own pace.
- There are expanding opportunities to learn online or on the job and to earn college credit by taking a test. **Western Governor’s University** has been offering competency-based credit for 15 years. College Board offers the College Level Examination Program (CLEP), and there are several free CLEP prep options.

With all of the informal and open learning opportunities available, many students will likely learn outside the formal structure of school. Competency-based systems will make it easy to show what they know, earn credit, and move to the next subject. Summative assessments will vary, including performance-based assessment and end-of-course exams. Badge systems are likely to help validate and “credit” students for smaller chunks of learning (i.e., unit size rather than full courses).

10. **Assessments and Progress Tracking Systems:** Time-based approaches in the current system are oriented toward traditional grading and managing a cohort environment. Competency-based schools need to make strategic
How do Competency-Based Learning and Digital Learning Connect?

There are powerful intersections between competency education and digital learning. The Digital Learning Now framework for guiding policymakers identifies 10 elements to enable digital learning, three of which enable competency education.

Element 3: Personalized Learning (All students can use digital learning to customize their education).

- State allows students to take online classes full time, part time, or by individual course.
- State allows students to enroll with multiple providers and blend online courses with onsite learning.
- State allows rolling enrollment year-round.
- State does not limit the number of credits earned online.
- State does not limit provider options for delivering instruction.

Element 4: Advancement (All students progress based on demonstrated competency).

- State requires matriculation based on demonstrated competency.
- State does not have a seat-time requirement for matriculation.
- State provides assessments when students are ready to complete the course or unit.

Element 8: Assessment and Accountability (Student learning is the metric for evaluating the quality of content and instruction).

- State administers assessments digitally.
- State ensures a digital formative assessment system.
- State evaluates the quality of content and courses predominately based on student learning data.
- State evaluates the effectiveness of teachers based in part on student learning data.
- State holds schools and providers accountable for achievement and growth.

decisions about assessment strategies and systems, student information systems that track individual and group progress in achieving proficiency, and reporting/visualization systems. Choices about access devices (i.e., laptops or tablets) will impact systems options.

- Casco Bay High School in Portland, ME upgraded their assessment system for alignment with graduation outcomes to achieve full transparency between students, families, and teachers and to enhance accountability.
- Vergennes Unified High School is working with the Center for Collaborative Education to build teachers’ capacity to design and use performance-based assessments.
- Adams 50 and Lindsay Unified School districts are using the Educate system to monitor student progress, provide feedback to teachers, and enable principals to build staff capacity.
- Michigan’s Education Achievement Authority is working in partnership with Agilix to develop Buzz, which monitors student progress and engagement.

These are just a few of the design choices that competency-based innovators will need to make. Each one needs to be made based on how it will ensure that traditionally underserved students will thrive in a competency-based system. As digital tools and information systems develop, it is likely that an entirely new set of techniques and approaches will be required. We are on the edge of an extraordinary time in education.