The Learning Edge

Supporting Student Success in a Competency-Based Learning Environment

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*Competency*Works

Acknowledgments

About CompetencyWorks

CompetencyWorks is a collaborative initiative drawing on the knowledge of its partners and advisory board. The International Association for K–12 Online Learning (iNACOL) is the lead organization with project management facilitated by MetisNet. We are deeply grateful for the leadership and support from the partner organizations American Youth Policy Forum, Jobs for the Future, and the National Governors Association. Their vision and creative partnership have been instrumental in the development of CompetencyWorks.

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State by state, our country is revamping our education system to ensure that each and every one of our young people is college and career ready. Over two-thirds of our states have adopted policies that enable credits to be awarded based on proficiency in a subject,[i] rather than the one-size-fits-all seat-time in a classroom. Now states such as Maine and New Hampshire are taking the next step in establishing competency-based diplomas in which students are expected to demonstrate that they can apply their skills and knowledge.

To ensure high-quality competency education, in 2011 one hundred innovators created a working definition to guide the field. This paper delves into the fourth element of the definition: *Students receive timely, differentiated support based on their individual learning needs.* Through a series of interviews and site visits, an understanding of how support in a competency-based school differs from traditional approaches emerged. Learning in a competency-based environment means pushing students and adults to the edge of their comfort zone and competence—the learning edge. Common themes that were drawn from the wide variety of ways schools support students became the basis for the design principles introduced here.

It is essential to pause and understand the importance of *timely, differentiated support.* Our commitment to prepare all of our young people for college and careers demands that we be intentional in designing schools to effectively meet the needs of students of all races, classes, and cultures. It also demands our vigilance in challenging inequity. There is a risk in competency education—a risk that learning at one's own pace could become the new achievement gap and that learning anywhere/anytime could become the new opportunity gap. Therefore, our goal in writing this paper is to provide ideas and guidance so that innovators in competency education can put into place powerful systems of supports for students in order to eradicate, not replicate, the inequities and variability in quality and outcomes that exist in our current system.

Please consider this paper as an initial exploration into what it means to provide support for the individual learning needs of students. It is designed to generate reflection, analysis, and feedback. Please use the comments section or contribute an article to CompetencyWorks to share your feedback, experiences, and ideas for how we can ensure that students are able to get the help they need—when they need it—to achieve proficiency in the skills necessary for college and career readiness.

You can learn more about competency education at CompetencyWorks.org as well as links and materials for all the resources mentioned in the paper on the Competency-Based Pathways wiki.

I. Support in a Competency-Based Environment

Working to achieve greater competence ensures that students, and teachers, will be at their learning edge most of the time. Adequate, timely, and authentic support can be the difference between students enthusiastically working through a learning challenge or panicking and turning inward because they feel ashamed, misunderstood, angry, powerless, and stuck on the ledge of failure. Support should strengthen access, voice, and agency, not take it away. In a competency-based system, keeping students and teachers on their edge and off the ledge means that everyone will need support.

There are two necessary ingredients for creating learning-edge supports in which students are continually progressing in building and applying skills. The first is a belief on the part of educators and students that learning and achieving at high levels is, in fact, possible. The second involves creating the structures, relationships, and conditions in the environment to enable that learning to happen.

In a fixed mindset, people believe their basic qualities, like their intelligence or talent, are simply fixed traits. They spend their time documenting their intelligence or talent instead of developing them. They also believe that talent alone creates success—without effort. They're wrong.

In a growth mindset, people believe that their most basic abilities can be developed through dedication and hard work—brains and talent are just the starting point. This view creates a love of learning and a resilience that is essential for great accomplishment. Virtually all great people have had these qualities.

– Carol Dweck, Mindset: The New Psychology of Success

A WORKING DEFINITION OF COMPETENCY EDUCATION

In 2011, innovators from across the country developed a working definition of competency education.

- Students advance upon mastery.

- Competencies include explicit, measurable, transferable learning objectives that empower students.

- Assessment is meaningful and a positive learning experience for students.

- Students receive timely, differentiated support based on their individual learning needs.

- Learning outcomes emphasize competencies that include application and creation of knowledge along with the development of important skills and dispositions.

A. Growth Mindset Creates Opportunities to Learn

The need to provide support for young people in schools is not a new concept for educators. Providing timely and personalized support for students who are advancing at individual paces and in different learning spaces, however, requires a shift in mindset and culture. As described by Don Siviski, Superintendent of Instruction at the Maine Department of Education, "It starts with a growth mindset that values all of us as works in progress. It's the joy of learning that motivates all of us to do our best. We have to let go of fixed mindsets that make us afraid of taking risks that might lead to failure. We must have a culture that understands failure is temporary, focusing one's efforts, and that support exists to conquer the challenge." Carol Dweck, professor at Stanford University and the theorist behind the growth and fixed mindset, explains that "The *growth* mindset is based on the belief that your basic qualities are things you can cultivate through your efforts. Although people may differ in every which way—in their initial talents and aptitudes, interests, or temperaments—everyone can change and grow through application and experience."[ii] Fostering a growth mindset means encouraging persistence and effort as the key components of achievement. Students and adults with growth mindsets tend to see challenging situations as opportunities to learn things that they don't currently know, rather than potential avenues for failure.[iii]

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In traditional schools, support comes in the form of an intervention that is generally associated with failure or disability. As previously mentioned, learning in a competency-based environment means pushing students and adults to the edge of their comfort zone and competence—the learning edge. Linda France, Director of Next Generation Learning at the P20 Innovation Lab at the University of Kentucky, notes that "Asking students to produce products that demonstrate proficiency is well beyond what we are currently asking them to do in our high-stakes testing environment. We need to be asking students not simply to pass a test, but to apply their knowledge in ways that require them to think differently and to go deeper into the content." Linda Laughlin, Assistant Superintendent of RSU 18 (Regional School Unit 18)[iv] and a member of the Maine Cohort for Customized Learning (MCCL), emphasizes that "We have to create an environment for teachers and students in which they can try, make a mistake, and learn how to do it better." In competency education environments, a culture of learning is important for students and teachers alike.

While the growth mindset is not the only way to increase student motivation, this type of mindset is crucial in a competency-based learning environment where students will be asked to "fail" often while aiming for greater competency. For additional ideas to increase student motivation, please see Motivation, Engagement, and Student Voice at Students at the Center.[v]

B. Learning That is Grounded in Relationships and Anchored by Assessment

Virgel Hammonds, Superintendent of Maine's RSU 2 District, cautions that "We can't get to proficiency-based education without being student-centered. If we don't start with where the students are, kids will be kept back." Hammonds describes it as flipping the focus. "Who did we observe in the traditional classroom: the teacher. Now we observe the students by asking them 'What are you learning? How are you going to demonstrate it? What comes next?'" Repeatedly, innovators point to meaningful and regular dialogue and assessment, grounded in strong relationships, when describing what is most needed to provide a timely and differentiated system of supports.

Competency education changes the nature of the relationship between students and teachers. Student agency in a competency-based environment comes from transparency, demystifying assessments and skill development, and transferring the power inherent in this knowledge from the adults to the students. According to Carmen Coleman, Superintendent of Danville Schools in Kentucky, "Designing a system that makes this information and the consequences of achieving or not achieving benchmarks accessible and transparent to young people puts them in the driver's seat. Once they are in the driver's seat, more often than not, kids will put themselves where they need to be." The transparency that is inherent in competency education empowers and motivates many students. Students increasingly take responsibility for understanding their own learning process, asking for help from peers and teachers when they need it, and pursuing learning that is important to them and their lives. When they don't, teachers engage the students, their peers, parents, and community partners to better understand what is going on for students and what they need to have in place to help them move forward.

As we discuss throughout this paper, no matter where students are along their learning progression, drawing together and providing effective supports requires that educators understand all students, the narratives they hold about themselves, their lives, their learning, and the narratives that others hold about them. For teachers, competency education naturally evolves into collegial relationships and a culture of ongoing professional development that is focused around student progress.

II. Building a Learning-Edge System of Supports

In dialogue with educators and experts across the country, it is clear that a shared understanding of a learning-edge system of supports is starting to take shape.

- The culture is rooted in a growth mindset that supports risk taking and help seeking.
- Assessments are transparent, ongoing, and provide meaningful feedback that supports student learning and agency.
- Interventions are embedded, tiered, and timely.
- Opportunities to learn are maximized within and beyond traditional school times and settings.
- The whole student is considered when designing learning opportunities and supports.
- A continuous improvement system is in place that responds to help keep students within or above pacing expectations.

If a learning-edge culture is in place, a virtuous cycle of learning is created. It is not, however, as simple as saying that all learning is self-paced. There need to be structures, support, and parameters that undergird the notion of self-paced learning, especially for young people who have fallen behind. Beatriz Zapater of Boston Day and Evening Academy is adamant about this. "Pacing matters. Kids need structure, accountability, and expectations. They need an organized way to develop the habits that will allow them to gain momentum and thrive." Innovators describe the process of keeping students on the learning edge as 1) assessing to understand where students are in their learning progression, 2) organizing learning in modules so that students can experience success early on, and 3) getting students the help they need to expedite the learning process. Once students are successful—and know what it takes to be successful—ownership, passion, and timely skill-based interventions can accelerate their learning. A virtuous cycle is created where supports are integrated and rarely seen as add-on programs. Roy Harris, Principal of Detroit's Schools for the Future, pointed out that "We avoid programitis at all costs. If there is something that isn't working right for our students, we are going to figure out a better way and integrate it into the school, not add a program."

III. Design Principles for Learning-Edge Supports

Based on research and interviews with leaders and learners around the country, an emerging set of design principles, guidelines, and questions are offered here to guide conversations in districts and schools for implementing competency education.

PRINCIPLE 1: *Build a Culture rooted in a growth mindset that supports risk taking and help seeking.*

- Build enthusiasm for challenging tasks with the knowledge that if learning is occurring, support will be necessary.
- Create rituals, routines, and a shared language to build competencies that foster and reward support seeking.
- Engage teachers in challenging and personalized learning and provide support that mirrors the learning and support of students.

Discussion

Schools using competency education are very intentional about developing school cultures that emphasize mistakes and failures as steps toward successfully gaining new knowledge and skills. Furthermore, schools that succeed, redefine mistakes and failure as *part of learning*, rather than *learning in spite of* mistakes and failure.

Below are examples of how schools operationalize this culture.

A Culture of Giving and Receiving Support: Examples of explicit rituals and routines that support students learning from one another abound in competency education. In MCCL schools, signs encourage students to ask friends for help. Every Friday, students at YouthBuild Charter School in Philadelphia attend a town hall meeting. Part of the meeting includes students giving and receiving acknowledgements about things that happened during the week. Often those acknowledgements give examples of support seeking, giving, and receiving. The staff facilitator helps students and staff to reflect on those examples as a way to understand what it means to build a supportive community.

At the Boston Arts Academy, teachers strive to better understand what "risk taking" means to students so that they will have a better idea of when students are in that learning-edge space. They are working to develop a shared language so that teachers and students can communicate this message to one another, whether it is in a quick exchange in the hallway or during a moment of frustration in class.

Perhaps the most important support for students, however, is support for teachers. Richard Elmore, an author and professor at Harvard University, also remarks on the importance of building a learning-edge culture for teachers. "In order for people to learn and take responsibility for their learning, they have to work in an organization that creates a holding environment for that learning—a predictable, safe, and stable environment that acknowledges and supports the risks involved in trying to do something you don't know how to do and getting progressively better at it over time."

Protocols and Practices That Embody the Culture: It is important to remember that the mindset undergirding a practice and approach can make the difference between an effective practice and one that undermines student achievement. For example, in a growth mindset culture where students are actively involved in shaping their education, tools such as codes of conduct and standard operating procedures are powerful mechanisms to create a safe and respectful environment that supports learning. However, in fixed mindset cultures or where there are institutional mechanisms producing patterns of inequity, these tools can be dehumanizing and oppressive. Take the time to confirm with students that the practices are having the intended goal of generating a love of learning and a growth mindset culture.

Students in the Driver's Seat: Students need to understand how they learn, what facilitates and what impedes their learning, the competencies they are expected to achieve, the benchmarks for proficiency, and the application of these competencies. The more they understand, the more agency they can take in accessing and integrating feedback and support.

Many of the schools in the Maine Cohort for Customized Learning are saturated with routines and tools to make learning empowering and transparent to the students. In every classroom, there are posters with codes of conduct and standard operating procedures to guide learning, and flow charts to remind students what to do when they get stuck. Some other examples from Maine are listed here.

- At the RSU 2 District, the Instructional Guide—a rubric based on Bloom's taxonomy—identifies expectations for demonstrating proficiency and is available online to students and parents.
- Messalonskee Middle School uses the capacity matrix. A teacher described this tool as central to their

proficiency-based system: "The capacity matrix plays an important function. It has kid-friendly learning goals, their choices for showing evidence of their learning and creating a plan."

- In Dan Crocker's math class at Hall-Dale Middle School, as in many other classrooms, a flow chart reminds students that if they need help to first check with a friend or seek resources indicated on the capacity matrix, and then if they still need help to ask the teacher.

- At Russell Elementary School, 1st and 2nd grade classrooms have the Code of Conduct and Standard Operating Procedures clearly posted on the walls. These are the routines and rituals of a culture that assumes that everyone is going to become stuck or confused at some point and that students have the responsibility of seeking the help they need.

Creating a growth mindset culture, using routines and rituals to increase help seeking, and transparently communicating benchmarks does not equate to blaming the students if they don't ask for help. These principles are designed to give students agency, not to minimize the responsibility of the adults to observe, support, and intervene as the students face learning challenges.

Design Questions:

1. How will you build a growth mindset culture when you orientate students and teachers to the practice of competency-based learning?

2. What are the regular routines, rituals, and language that you will implement throughout your school to encourage support seeking, giving, and receiving?

3. How will teachers and students learn to differentiate between the "edge" and the "ledge"? What indicators might be helpful in recognizing and acting on this distinction?

PRINCIPLE 2: *Utilize Assessments that are transparent, ongoing, and provide meaningful feedback to support student learning and agency.*

- The purpose of each assessment is transparent and useful to students and teachers.

- Multiple assessments are utilized to gain a deeper understanding of the students' progress.

- Students and teachers regularly reflect on the outcomes and implications of assessments, as they relate to student learning goals and competency progression.

Discussion

Competency education is inherently student-centered in that students progress until they are proficient, not according to a preset timetable. Continuous and transparent assessment is what enables students to progress. It is a necessary part of the learning process. As the authors of "Assessing Learning" [vi] point out, "When assessment is student centered, it can promote learning and even motivation. Moreover, assessment is essential to student-centered approaches to learning, which value differentiation, active engagement and self-management as critical to learning." Learning-edge cultures create a hunger for, rather than a dread of, assessment and feedback. This happens when assessment and feedback is challenging **and** supportive, connecting with the students' understanding of where they are trying to go and why—and what will help them to get there.

Evidence of Learning: Formative assessment becomes explicit in competency education environments to the degree that students understand that their homework and projects are showing evidence of learning a specific "learning target" or "measurement target." As Zapater explains, "With each benchmark having its own rubric, competency education lends itself to formative assessment. Students can't move on until they have demonstrated knowledge of the benchmark. It has to be done independently, multiple times, and using appropriate vocabulary. We have created a culture of revising and editing." Student-centered assessments based on evidence or artifacts can catalyze more learning, not simply be a snapshot of student learning.

Assessment and Reassessment: Reassessment is integral to competency education; however, it does not mean that students simply take tests over and over again until they pass. Together, students and teachers will work to understand what is confusing to the students, often reviewing or reinforcing early learning targets. With more practice and study, students can then demonstrate their proficiency. Sometimes when students have shown proficiency on a learning topic, they may even ask to have a reassessment later, when they can demonstrate a much deeper or richer understanding. Spaulding High School in Rochester, New Hampshire, has developed a Re-Learning and Re-Assessment policy to support students who are struggling, as well as for those who demonstrate proficiency to continue skill building until they are Advanced or Beyond Competent. In competency education, the benchmark for proficiency should be set to ensure that students are college and career ready. Opportunities can then be expanded for students who reach proficiency. Depending on the structures in place, most importantly in blended learning, students can move onto the next unit or course once they have demonstrated proficiency, or they can apply their skills in deeper or expanded ways within the same learning target. Ensuring that the proficiency benchmark is sufficiently high and then enabling support to achieve and then move beyond proficiency is an emerging issue in competency-based schools.

Assessment Literacy: In the traditional system, assessment is mainly something that teachers do "to" students. In competency education, assessment is something that teachers and students do together. As the people closest to student learning, teachers have the primary responsibility for knowing how students learn, where they are on the novice-to-mastery competency continuum, and how to design "learning-edge" experiences that are challenging but within the students' reach. As students fall short of benchmarks—which they will do if they are operating at the edge of their competence—teachers must assess, with the students, what more needs to be done to hit the mark and what support the students need to get there. Siviski stressed that "Our teachers need to have assessment literacy. Our licensing process needs to emphasize assessment literacy so that teachers have the skills to understand how a child demonstrates evidence of learning in multiple ways." This assessment process may require levels of intervention, some which can occur between the teachers and the students and some that will need to be organized and supported by the school, the district, or the broader community.

Design Questions:

1. Do the students understand the relationship between the evidence produced and the benchmark they are trying to achieve?

2. Are there clear guidelines about reassessment and the role that it plays in developmental learning?

3. What are the intentional processes for reflecting on assessments with students?

4. What support is there for teachers and students to develop and to access appropriate learning-edge tasks that support competency development?

PRINCIPLE 3: *Develop Embedded, Tiered, and Timely Interventions* for just-in-time support that leads to successfully meeting or exceeding the learning targets.

- Interventions are grounded in assessments.
- Shorter learning cycles with fewer, more integrated learning targets are developed to allow for immediate intervention and feedback.
- Adaptive partnerships are created for necessary student services that are beyond the scope of the school and the school system.
- Blended learning and adaptive digital tools expand options and provide choices for ways students can practice, apply skills, and demonstrate evidence of learning.

Discussion

Personalized, ongoing, and progressive interventions require flexibility in scheduling, rostering, and partnerships. In "Making Mastery Work: A Close-Up View of Competency Education,"[vii] a teacher from Casco Bay High School emphasized, "We learned (or perhaps re-learned) the importance of having all decisions about differentiation/ student support be grounded in the learning targets. Only then can we most effectively use time and staff flexibly…" Below are some of the ways schools are embedding interventions so that students get the help they need, when they need it.

Grouping and Regrouping: In a fixed mindset culture, grouping may become permanent and include tracking in which students are not given the opportunity to advance. Conversely, competency-based schools always start where students are, not where they should be according to a grade-level curriculum. A common process is the grouping and regrouping of students according to their needs and the needs of the other students. The goal is to deploy teaching staff around student needs so that students are working at their own level. A teacher emphasized this point: "The big shift is in thinking about *our* kids instead of *my* kids. As teachers, we have to become comfortable relinquishing control of some of our students to another teacher so that they can get the help they need." This means that schools need to find ways to respond, especially when there is wide differentiation in skill levels.

The first step is to perform comprehensive assessments when students enter a school for the first time. At Nolan Elementary School in Detroit, they refer to this as leveling. The next step is a process of grouping and regrouping based on the number of students at each level of skills. Educators will change how students are grouped in response to student progress and ideas about how to best deploy staff in meaningful ways. Students may be in groups in different levels for different content or skill areas.

Embedding Intervention: Schools use time during the school day to support student learning. Whenever possible, teachers seek ways to assess learning and provide feedback while in the classroom. James Rickabaugh, Executive Director of the Cooperative Educational Service Agency (CESA) #1 in Wisconsin, emphasized that "In our current system, time is something that we fight against. In a competency-based system, time becomes a resource to leverage wherever we can."

In some of the science courses at Spaulding High School, teachers are using technology as a tool. While students work in groups on curricular tasks using Google applications, the teacher is electronically popping in to provide them with comments. If they have done an exercise incorrectly, they are asked to rework it and then explain why the first way was wrong.

Hammonds explained that "We build intervention time into the master schedule. At the high school level, time before and after school isn't feasible for students who have family or work responsibilities. We do regrouping during the school day." At Hall–Dale High School, all teachers have intervention time.

At Messalonskee Middle Schools, students have Learning Goal Time (LGT) every day, with a full two hours on Monday morning. It's important to remember that in a competency-based environment there is always something students can be working on. Mark Hatch, Principal of Messalonskee, emphasized that "There is always something to do, even for the students who are getting ahead. So LGT time isn't just for students who are stuck. It's for everyone."

Extra help can also be embedded in the school calendar. Boston Day and Evening Academy has built-in points and processes to ensure effective transitions at the end of courses. Teachers create flexibility at the end of each trimester to review benchmarks and determine how to help any struggling students. Transfer windows allow students two weeks to complete all work if they want to progress to the next course. Those who don't are not enrolled in the next-level course so that they can continue focusing on mastering the skills.

Building on Blended Learning: Blending learning[viii] can be a powerful mode of instruction in competency-based schools. First, it allows students to advance at their own pace. Boston Day and Evening Academy found that it made sense to place several modules in academic courses online so that students could invest more time studying and move forward more quickly. These online modules are created by the teachers so that students can either make up for lost content and skills or accelerate.

Second, blended learning is an important tool for targeted skill building that scaffolds competency progression. Liliana Polo, founding principal of West Brooklyn (NY) Community High School, a transfer high school for over-age and under-credited youth partnered with Good Shepherd Services, explains, "When used to support humans' natural learning cycle, technology can support both cognitive and emotional development. Technological tools provide us with ways to access deeper and more engaging methods of understanding. Utilizing the right tools and matching them to student cognitive needs creates pathways for increased self-confidence and accelerated learning." Blended learning supports may include adaptive software that provides rapid feedback to students as they learn and create more practice time for skills that are harder for them to attain. It can also provide multiple modes of learning so that students can watch videos on the topic, review the teacher's lectures several times if they don't understand some concepts, and have some choice about how to pursue studying the topic and demonstrating their knowledge.

There are now emerging techniques for using blended and online learning to "fill gaps." Although he emphasized that it is better to have this additional support provided during the semester, Steve Kossakoski, CEO of Virtual Learning Academy Charter School (VLACS) in New Hampshire, explained that "VLACS is becoming skillful at assisting schools with identifying missing competencies and learning objectives, and then providingcurriculum and instructional support to help students master the missing competencies. Teachers work with students on unit recovery, enabling students to demonstrate mastery on unit competencies and catch up quickly with immediate interventions online." In return, VLACS is funded for the appropriate portion of the course cost. This may have large implications as students with significant academic gaps increasingly turn to online courses for support.

Design Questions:

1. What supports will be embedded for all students?

2. What supports will be integrated for students who need more intensive and extensive intervention?

3. How will the school day and calendar be structured to provide embedded supports?

4. How will the partnerships in your school need to change to provide more adaptive and personalized support?

5. How will you utilize blended learning opportunities to develop timely and personalized interventions?

PRINCIPLE 4: *Develop Extended Opportunities to Learn within and beyond traditional school times and settings, including internships, online learning, project-based learning, summer classes, and more.*

- Opportunities to learn and to receive support extend beyond the school day and school year.
- The schedule and use of time supports the integration of learning outside of school.
- Students can demonstrate mastery of competency through anywhere/anytime learning experiences.
- Teachers know how to access a network of learning experiences inside and outside of school to support students at various stages of learning.

Discussion

The expansion of where and when students learn and demonstrate application of skills also includes the places where they can get extra help in understanding academic content. Help doesn't always mean direct tutoring on academic skills. Extra help can also mean strengthening the other big "R's"—relevance and relationships.

Relevance can take many shapes and sizes: pursuing outside interests, attending college courses, or finding a part-time job. But for many it is a growth and exposure process that requires new experiences and building networks of people—relationships—that can introduce new meaning to their schoolwork.

Anytime/Anywhere: When New Hampshire developed their ground-breaking policy to transform their time-based crediting into competency-based learning, they simultaneously opened the door to expanded learning opportunities (ELO) as credit-bearing opportunities. Education Week explored how students at Newfound Regional High School in Bristol, New Hampshire, are taking advantage of this policy through internships and online learning.[ix]

Districts are empowered to award credit for ELOs, based on student demonstration of mastery of rigorous, measurable course-level competencies. This means that the district must have previously developed course-level competencies, appropriate assessment methods, and clear expectations for how students will provide evidence of proficiency.

Project-Based Learning: The Common Core State Standards requires a higher application of skills, which opens the door to more project-based learning. Angela Underwood, Principal at Nolan Elementary School, countered that project-based learning isn't just about demonstrating knowledge. "Project-based learning can ignite the inquiry process. Sometimes we introduce new content through projects, rather than using it just for opportunities to apply new skills." Real-world, project-based learning can be even more powerful.

Connecting to College and Careers: When students experience the expectations of the worlds of college and career, they are likely to be more motivated to address their gaps and weaknesses. Danville High School in Danville, Kentucky, uses Intersession to create highly personalized learning opportunities for students. Students identify what they want to learn and why, and school advisors and learning facilitators help them connect those experiences to their college and career goals and to design their week-long Intersession learning experience. Dr. Carmen Coleman, the Superintendent for Danville schools, says that Intersession is changing teaching and learning at Danville High School. Students use Intersession in a variety of ways, including for academic support. Dr. Coleman emphasized that when the consequences of achieving or not achieving their competencies are transparent to students, they opt to do what they need to do to pursue their passion projects. So, while Intersession is about passion, Dr. Coleman said that it is also a reality check about what it means to pursue that passion. "When students make the connections and have the support, they do the right thing."

Many competency models include opportunities for students to take college courses, participate in internships, and find employment as part of a process of applying their skills in real-world settings, as well as learning to navigate new environments. Diploma Plus and Schools for the Future incrementally ramp up college and career experiences as students move from proficiency in the foundational levels of academic skills to higher performance levels. The goal is multi-pronged. First, it provides the opportunity to "try it on" to students who may not have had any work experience during their adolescence or whose parents had no college experience. Second, it helps students make the direct connection between what they are learning in high school to their college and career options. Finally, it helps students build the type of independence necessary for success as they transition beyond high school.

Design Questions:

1. How will you use technology to support extended opportunities for learning?

2. Do you have access to a network of extended learning opportunities? If so, how will it be accessible to students and teachers? If not, how will you develop this network?

3. What is your process for documenting and acknowledging the competency progression that occurs during extended learning time?

4. How do students learn about and select from the menu of learning opportunities?

PRINCIPLE 5: *Know the Whole Student and seek to understand their life and their learning.*

- Social-emotional and lifelong competencies are part of the competency system.
- Students and teachers work together to make sense of assessments, learning strengths, and learning needs.
- Every student is "well known" by at least one adult in the school.
- The school engages peers, staff, families, and communities in creating learning-edge support teams for students.

Discussion

Competency-based schools create structures so that educators have the opportunity to get to know their students—how they learn, what is important to them, and where they are in their learning progression.

Home Away from Home: At many effective schools, students will describe the feeling that they are cared for, often suggesting a sense of home or family. This doesn't just happen because people care. These schools are structured to build in time and attention toward knowing their students. Nora Priest, one of the authors of "Making Mastery Work: A Close-Up View of Competency Education," emphasized the need to place "support in a structural home such as an advisory system." Grouping students with advisors helps students to be "well known" to at least one adult. While advisors provide critical support to students and teachers, they should not be seen as the only person responsible for the growth and development of the students, but rather the person with the most complete understanding of the students. Advisors can also be helpful in catalyzing the support network that exists or needs to be built around students, both in and outside of school.

We have learned that the pathway to learning is through care and concern. We ask our kids to make themselves vulnerable at school, and they won't succeed unless they are in a supportive environment. Most of our students have struggled in school and we feel the pressure to make sure that the learning environment is thrilling. Care and concern must be matched with captivating and relevant learning experiences.

– Tony Monfiletto, co-founder, ACE Leadership High School, Albuquerque NM

Accelerating Maturation: Competency-based schools build upon a holistic understanding of their students, knowing that students have life progressions as well as learning progressions. At ACE Leadership High School, emotional upheaval is assumed to be part of life with teenagers. As Principal Tony Monfiletto explains, "We have learned that the pathway to learning is through care and concern. We ask our kids to make themselves vulnerable at school, and they won't succeed unless they are in a supportive environment. Most of our students have struggled in school and we feel the pressure to make sure that the learning environment is thrilling. Care and concern must be matched with captivating and relevant learning experiences." At ACE, an expansive "advisory" model is a major part of the day—with 90 minutes in the morning and a wrap-up at the end of the day. It includes a daily emotional check-in time and a focus on a healthy life, workout time, and time for college

and career development. Project-based learning that is rooted in solving industry-based problems provides opportunities for students to build relationships with adults.

Schools for the Future (SFF) is designed around the assumption that support is integral to the learning experience, not a supplemental service. Ephraim Weisstein, founder of SFF, explained that "Our schools are designed to accelerate maturation and learning. We designed the school with consideration to the critical intersection of the psychology of learning, social-emotional learning, and cognitive development." In response, SFF created PACT teams. Each team consists of a Youth Development Specialist (YDS), an academic teacher/advisor, and 12–14 students. The team remains together at least for the academic year and in some cases for the duration of their SFF years. It meets daily, co-facilitated by the YDS and teacher/advisor, to build learning and study skills, track and discuss academic progress, build social-emotional skills, and focus on future options. According to SFF, "The PACT curriculum emphasizes four psychosocial domains associated with high achievement: a) self-efficacy, b) social-emotional literacy, c) individual and group problem-solving, and d) post-secondary and career aspiration." Resiliency and perseverance are key attributes that are encouraged during PACT meetings. The PACT team is where SFF stays on top of how students are doing.

Fast Feedback: At Nolan Elementary and Middle Schools, students provide daily feedback to staff about how they are doing in school. A quick online survey at the end of each school day asks students to self-assess with a number of questions, such as if they were interested, bored, giving 100%, etc. This quick snapshot helps teachers know where to focus. The principal can quickly grasp if the school culture is lagging and too many students aren't giving their all or are becoming frustrated.

Design Questions:

1. How are social-emotional and lifelong learning competencies included in your competency system?

2. How are staff members organized to support students? Does this structure encourage collective and individual responsibility for supporting students?

3. What support is provided at the classroom level, at the school level, and at the system level?

PRINCIPLE 6: *Implement a Continuous Improvement System that responds to keep students within or above pacing expectations.*

Students should be self-paced in that they are working on skills based on their learning progression, with adequate time for practice and demonstrating proficiency and with appropriate supports and the ability to advance upon mastery. Pacing should be success-enabling. Self-pacing does not mean letting students fall so far behind that they cannot graduate.

- Regular meetings about student progress using transparent proficiency data should take place to monitor student pacing.

- Students and teachers should understand the implications of pacing and the opportunities available to support acceleration at both ends of the pacing spectrum.

Discussion

Continuous improvement is rooted in a growth mindset. Educators who believe they can adapt to changes in the student population and the political context, and to emerging changes in education practice, engage in a practice of continuous improvement. A fear of change can manifest in an unwillingness to constantly evaluate practice.

Communicating Progress: School administrators choose the way they communicate goals and monitor student progress. In one elementary school in the Adams 50 School District in Colorado, pacing is managed through a red, yellow, and green alert system. The faculty room walls are covered with the names of students, color-coded to visually identify student progress. This powerful visual, in the room where teachers converge on a regular basis, keeps student progress at the center of teacher practice and provides an opportunity for teacher inquiry and collaboration. Most competency-based schools find that information systems are critical so that students, parents, and teachers can respond to their students' progress.

Learning-Driven Supports for Students and Teachers: When schools implement information systems that help them stay on top of standards-based proficiency progression, teachers can more easily initiate conversations among themselves about how to better support their students. Principals can generate exception reports that identify students who are not making progress and then begin a deeper inquiry: is this an instructional issue in which a different approach might be helpful or where the student needs more practice, a developmental issue in which the student just needs more time or may need some accommodations to help with better progress, or are life circumstances making it harder for the student to study?

There is still work to do in the development of metrics that will drive robust, continuous improvement efforts in competency-based schools and districts. Certainly in the next few years those districts that have fully embraced competency education by utilizing a robust information system will be leading the way. To help districts and schools get started, iNACOL (International Association for K–12 Online Learning) has recently published a report that takes into consideration competency education: "Measuring Quality From Inputs to Outcomes: Creating Student Learning Performance Metrics and Quality Assurance for Online Schools."[x]

Design Questions:

1. Do you have benchmarks in place against which to identify proficiency challenges?

2. Do you have a system to monitor individual student growth, based on standards and rate of pacing?

3. How do you help students and teachers differentiate between self-paced learning and success-enabling pacing? How do you think about meaningful pacing for students who enter schools at below proficiency levels or with significant gaps?

RETHINKING DISTRICT ROLES AND RESPONSIBILITIES

Expecting schools and teachers to provide all the supports for the students in their classrooms simply will not work in a competency-based education environment. There will be times when the teacher doesn't have the right mix of tools to provide the support the students need. There will be times when the schedules of the teachers and the students aren't compatible. There will be times when students need real-life opportunities or intensive wraparound services. There will be times when students need access to more advanced courses, including college level. There will be some times when a student needs a different school environment designed to provide greater structure, greater social-emotional support, or greater flexibility. Thus, schools and districts need to proactively build strategic partnerships and organize resources to respond to student needs as well as student progress.

Imagining new ways to distribute embedded supports into the work of teaching and learning will call for new staffing structures, professional development, and differentiation of roles for teachers. Districts and schools will need to be creative in organizing resources to ensure that students have multiple opportunities to get the help and the experiences they need to become proficient in the application of their skills. Greater flexibility in federal and state policies will make a significant difference for districts and schools to create flexible, integrated, and embedded supports. As districts proceed in advancing competency education, they will want to take time to rethink their roles.

Districts can build capacity in many different ways.

- Create a continuous improvement culture that draws on information systems to ensure that students are progressing at a success-enabling pace and accessing timely supports.

- Collect performance metric data on student proficiency, including student progress on standards/ competencies, individual student growth along trajectories, college and career readiness, and graduation rates.

- Ensure quality control through cross-school dialogue, grounded in reviewing student work and sharing strategies that support student growth and learning.

- Provide an adequate mix of schools and programs to serve all students, especially for over-age and under-credited students who may need more intensive support or different instructional approaches.

- Manage delivery of services that are either highly specialized, in high demand, or require infrastructure and broad support in order to be effectively scaled.

- Establish policies and operations for online and blended learning to provide increased educational opportunities for students.

- Form city and/or countywide partnerships to create and to manage services and opportunities like social support and internships.

- Reduce time-based policies and practices to provide greater flexibility to schools.

IV. Educators on the Learning Edge

One of the most important supports that can be provided for students is support for teachers. Moving toward a competency-based system also means differentiating support, not just for students, but for teachers as well. Teachers cannot be held solely responsible for the provision of any and all supports that students need, but rather should be supported during the transition to a learning-edge approach. The capacity and resources to build a learning-edge culture must be distributed among students, teachers, schools, and districts.

Shared Responsibility: A fundamental shift in the mindset of educators in a competency education environment is from "my students" to "our students." Valerie Glueck, a teacher at Williams Elementary School in Oakland, Maine, explores this transition. "I had to learn to let go and open the doors of my classroom. I didn't have all the answers, and I probably couldn't do everything myself, even though I was trying as hard as I could. It was the beginning of valuing collaboration when I realized I didn't have to do it all alone." Kathy Harris-Smedberg, Principal at Williams, noted that "The collaborative climate is essential. Everyone has something to offer, a place where they can really shine."

Proficiency Drives Professional Development: A competency education environment can be extremely challenging to teachers at first. Kelly Grantham, an instructional strategist at RSU 57 Massabesic Middle School in Maine, explained that "The learning curve is steep as you move to a proficiency-based system, and I initially lost sleep because I felt like a first year teacher once again. You just let the student learning drive you, and you turn to your peers to help deepen your teaching toolbox." Marie Soucy, a math teacher at Massabesic, emphasized the importance of Professional Learning Communities (PLCs). "Learning crops up everywhere. We are constantly questioning ourselves, 'How can I improve my practice for students?'"

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— Valerie Glueck, Teacher, Williams Elementary School, Oakland, Maine

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It is important that principals and district leadership organize resources to support teachers. In the process of school turnaround, Nolan Elementary School brought teachers together with a strong focus on building relationships with their peers, increasing communication, building a common language, and establishing rituals and routines. Weisstein explained that the schedule at SFF "was designed so that teachers had enough time for themselves and to work with other teachers. Nothing works if the teachers don't have enough time to talk with each other about students, student work, and how to improve their practice."

Hammonds emphasized the importance of teacher talk. "We all feel the pressure of proficiency. We use every resource we can for time for teachers to talk. We saw a huge reduction in sick time when we moved to proficiency-based. We used the substitute budget line item to allow site teams to meet every other week on how to improve instruction." When teachers receive the support they need, students benefit. This dynamic was highlighted at Williams Elementary: instead of sending a floater teacher with substantial expertise to work with struggling students, the staff decided that there would be greater benefit to have the floater work with teachers in strengthening their practice. The willingness and ability to support students is rooted in a strong professional learning community in which teachers themselves have the support they need to be successful.

Building the Competencies Educators Need for Competency Education: A number of interviewees discussed the need to identify the unique skill sets that teachers must master in order to support students in a competency-based environment. Differentiating roles, based on these skill sets, may mean that one teacher is responsible for the development of and connection to a menu of different types of learning opportunities, ranging from online and virtual experiences to real-world, project-based experiences. Another teacher might be responsible for working with students to assess which opportunities best meet their learning needs, based on their current learning targets.

Teachers should also be seen as learners and be encouraged to engage in learning at a place where they are both an expert and a novice. This experience may build empathy and foster creativity in thinking about how to support students on this continuum.

v. Summary

This paper is just a first step toward understanding the dynamics of building a learning-edge culture. Innovators across the country are rapidly learning from their experiences what works and what doesn't work to help students. They are learning from each other about how to best embed supports into the very core of teaching and learning, school culture, and district operations.

As we move forward in implementing effective competency education, there are essential concepts that we will need to hold central to our work.

1. Commit to a growth mindset culture that encourages risk taking and expects that mastery will take more than one attempt. This culture should apply to students, teachers, and school administrators alike.

2. Embrace student-centered approaches that encourage students as well as educators to proactively seek support when they are stuck. Ensure that this support facilitates and supports agency and voice.

3. Be aggressive in seeking out timely interventions and multiple opportunities for students to explore and practice as they build new skills.

4. Remember that learning-edge supports need to be available for students progressing at all rates, not just for the highest- or the lowest-achieving students.

5. The learning and support of teachers is paramount to the learning and support of students. Teachers are also learners and should be engaged in a process of adult development, driven by student proficiency and their own trajectory toward mastery.

If we can consider these five elements as non-negotiable, we will be well on our way to building high-quality competency education where all students know what success is and how to attain it.

You can learn more about competency education at CompetencyWorks.org as well as links and materials for all the resources mentioned in the paper on the Competency-Based Pathways wiki.

Endnotes

i "State Strategies for Awarding Credit to Support Student Learning," National Governors Association.

ii Carol Dweck, *Mindset: The New Psychology of Success (New York: Random House, 2006), 17.*

iii Go to http://www.brainology.us to learn about a growth mindset curriculum created by Carol Dweck and colleagues.

iv See the Maine Department of Education Center for Best Practices for more on RSU 18 and RSU 2's journey toward proficiency-based education at www.maine.gov/doe/cbp/

v "Motivation, Engagement, and Student Voice" by Eric Toshalis and Michael J. Nakkula is part of the Students at the Center series, a project of Jobs for the Future. www.studentsatthecenter.org

vi Executive Summary of "Assessing Learning" by Heidi Andrade, Kristen Huff, and Georgia Brooke is part of the Students at the Center series, a project of Jobs for the Future. www.studentsatthecenter.org

vii "Making Mastery Work: A Close-Up View of Competency Education, "Nora Priest, Antonia Rudenstine, Ephraim Weisstein, and Carol Gerwin. Quincy, Massachusetts: Nellie Mae Education Foundation.

viii The Innosight Institute has outlined four models of blended learning used across the country. See "Classifying K-12 blended learning" by Heather Staker and Michael B. Horn. www.innosightinstitute.org

ix Catherine Gewertz, "N.H. Schools Embrace Competency-Based Learning*," Education Week*, February 7, 2012.

x "Measuring Quality From Inputs to Outcomes: Creating Student Learning Performance Metrics and Quality Assurance for Online Schools" can be found at iNACOL. www.inacol.org/research/docs/iNACOL_Quality_Metrics.pdf

About the Authors

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Laura Shubilla is currently a doctoral student in Harvard University's Educational Leadership program. Prior to September 2011, when Laura began her doctorate, she served as Co-President and CEO of the Philadelphia Youth Network (PYN), a non-profit intermediary dedicated to creating a citywide youth workforce development system. Through two major initiatives—WorkReady Philadelphia and Project U-Turn—more than 20,000 youth ages 14 to 21 are served each year. Prior to her work in Philadelphia, Ms. Shubilla was based in New York City where she received her Masters of Science in Social Policy, Planning and Administration from Columbia University and designed and developed Banana Kelly High School, one of the earliest New Visions schools in NYC. Ms. Shubilla was named one of Philadelphia's top 101 Connectors and received the Take the Lead Award honoring visionary women founders from the Girl Scouts of Southeastern PA. She also serves as Chair of the Board of Directors of the National Youth Employment Coalition. Laura Shubilla is also a co-founder of Building 21, currently in the design stage. Building 21 is a networked learning model designed to customize secondary and post-secondary pathways for learners aged 14 to 24.

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