Embracing Continuous Improvement and Innovation

A FOCUS SECTION FROM:

Implementing Competency Education in K–12 Systems: Insights from Local Leaders

RAMPING UP	DESIGNING	TRANSITIONING	IMPROVING

Read the complete Issue Brief at CompetencyWorks.org

WRITTEN BY:

Chris Sturgis

June 2015

iNAC⬤L
International Association for K-12 Online Learning

CompetencyWorks

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.

For more information on competency education, you can visit CompetencyWorks, read previous issue briefs on the topic, or visit the Competency-Based Pathways wiki for an in-depth look at the working definition.

BILL & MELINDA GATES *foundation*

Carnegie CORPORATION OF NEW YORK

nellie mae **EDUCATION FOUNDATION**

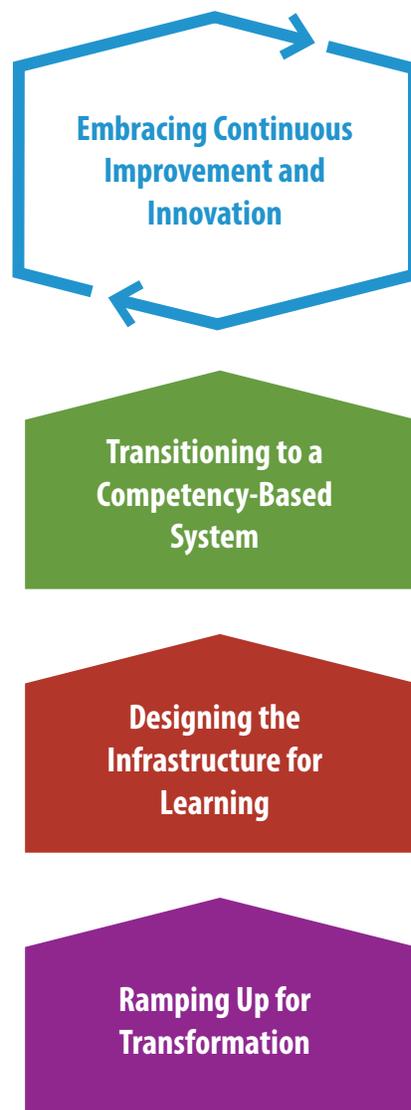# EMBRACING CONTINUOUS IMPROVEMENT AND INNOVATION

A FOCUS SECTION FROM:
Implementing Competency Education in K–12 Systems:
Insights from Local Leaders

The following is the fourth and final excerpt from the paper *Implementing Competency Education in K–12 Systems: Insights from Local Leaders*. The paper seeks to map out the terrain of the district implementation strategies being used to convert traditional systems into personalized, competency-based ones. Although states and districts use a variety of terms to discuss competency education, including proficiency-based, mastery-based, and performance-based, the goal is the same—to design the systemic infrastructure to ensure that students are getting support when they need it so that they are fully learning all the skills they will need as they advance to more challenging work. This requires schools to have the mechanisms in place to ensure consistency in how proficiency is determined and the flexibility to respond to students' needs in a timely way. Please see CompetencyWorks.org for more information on competency education.

Although not a detailed guide, the hope is that the discussion offered in the paper will be helpful to districts and schools as they begin the transformational process. Four stages of implementation are proposed in this paper: 1) Ramping Up for Transformation, 2) Designing the Infrastructure for Learning, 3) Transitioning to a Competency-Based System, and 4) Continuous Improvement and Innovation. To make it easier for you to use this paper with your colleagues, we have produced excerpts on each of these stages. You can find the full paper and other excerpts under Resources at CompetencyWorks.org.

This final excerpt, Embracing Continuous Improvement and Innovation, explores several challenges that leaders and educators must be aware of in moving forward. Leaders must shift from a culture of compliance to one of continuous improvement, and in some cases, leaders must stay true to their vision and purpose in the face of unsupportive state policy. Districts and schools must revisit their shared vision periodically, in partnership with the community, and deeply examine how they can improve to better meet the needs of students who experience lower achievement and to solve patterns of inequity.

Stages of Implementation

Embracing Continuous Improvement and Innovation

Transitioning to a Competency-Based System

Designing the Infrastructure for Learning

Ramping Up for Transformation

We aren't done innovating until 100 percent of our students are graduating.

– Ty Cesene, Co-Director, Bronx Arena

It is no surprise that Chugach School District received the Malcom Baldridge National Quality Award in its seventh year after creating a performance-based system. Competency education creates the conditions for continuous improvement and mutual accountability in managing school operations. When the only data is attendance and A–F grading scales, districts do not have access to data that allows them to track student progress in learning. With the rich data produced in competency education, schools can drive towards what Marzano Research refers as "high reliability" schools—schools that are able to continue to reflect upon their own performance and adjust to better meet the needs of students.[1]

There is a tremendous shift for leaders to move from compliance to continuous improvement. Compliance has an inherent element of fulfilling specific requirements where continuous improvement reaches for the stars. Oliver Grenham explained that at Adams 50, they discovered there was no middle ground. They were "all-in or nothing" because the shift to competency education requires a totally different paradigm. He compared it to that visual game in which you can see an old woman or you can see a young woman, but you can't see both at the same time. For district and school leaders, this means having to learn about continuous improvement management techniques early in the transition, even before the data may be fully available. There is simply no way to revert back to compliance management strategies after a second order change. The culture of learning expands to become a culture of continuous improvement with a focus on results.

Continuous improvement in this context is a formal methodology or a system to improve performance through reflecting upon data, engaging stakeholders in discussions about variation or low performance, planning for targeted improvements, and then repeating the cycle. Many districts use an easy to use process of Plan-Check-Act-Do to manage improvements. There are other techniques, as well, such as implementing quality controls or benchmarking against other organizations to seek out and adopt best practices.

At times, continuous improvement activities may be an internal process with educators fine-tuning the operations and practices within a school. For example, at Sanborn Regional High School, the ninth grade is organized into five academies, each with a team of teachers. The teachers, working as a PLC, use data to help students boost their skills, develop habits of learning, and successfully transition into high school. However, if the focus of the continuous improvement process has wider implications, a broader set of perspectives including students and community members will be brought into the process. Larger issues and more inclusive processes will of course affect the timeline. Over time, management teams will build the capacity to develop insightful management and exception reports that allow them to monitor performance (quality) and seek improvements to better serve targeted populations as students and as system-wide breakthrough innovations.[2]

New Hampshire's Virtual Learning Academy Charter School (VLACS) has embraced continuous improvement driven by a focus on student-centered learning. Already offering highly individualized, open-entry, competency-based online courses and competency recovery, VLACS began to seek ways to create greater personalization in which students could have more opportunity for learning experiences based on their interests and wider selection in how they learned and demonstrated their learning. VLACS is creating a variety of options for students to learn through projects and through experiences such as internships and college courses. Thus, students will have the opportunity to co-design their learning to a much higher degree as they select the mix of instructional approaches that are right for them.

LESSON LEARNED AND LEADERSHIP OPPORTUNITY

■ As districts build the capacity for continuous improvement, they find they need a more agile organizational capacity—they need an adaptive district. They may start by thinking about the organization differently by placing students at the top of the organizational chart rather than the superintendent or school board. Then they will begin, as Pittsfield School District and Chugach School District have done, to develop a flatter district organizational structure. Job descriptions are revisited, success measures put into place, and structures established to emphasize the knowledge, skills, and talents the adults need to succeed.

A. Improving Performance and Personalization through Powerful Data

We've learned that in order to manage in a performance-based system, we need to start with a balanced scorecard. When doctors do a check-up, they look at your heart, lungs, and weight. They consider it in terms of your height, gender, age, and your previous health status. We know that to have an accurate portrayal of our health, we need a balanced scorecard of indicators. The same goes for education. We need to have a balanced scorecard of indicators for our students, staff, and stakeholders to use to make decisions.

– Dr. Bob Crumley, Superintendent, Chugach School District

Timely, relevant data plays an important role in the transition to student-centered learning. In the process of the transition to competency education, school leadership, educators, and students will want, or even demand, an integrated information system to take advantage of the increased data on student learning. The drive toward improved student performance will increase the demand for data to guide greater personalization. Teachers who recognize the value of tracking student progress based on standards will not be content with the modifications allowed in most traditional student information systems or learning management platforms organized around semesters and courses. They will want to be able to monitor, support, and credential learning on standards regardless of if students are working below or beyond their grade levels. This requires organizing standards in a learning continuum beyond the course structure and displaying data in a way that gives a picture of the student profile—an entire student's body of work and mastery, not just grading assignments and assessments within a course.

An integrated learning system to support competency-based environments starts with student profiles and standards-based learning continuums. Indicators of a student's progress on each standard across content areas are key. Many vendors are offering standards-based or competency-based grading, but don't provide the student-centered approach to managing progress along a learning continuum in all the significant domains. The student information systems that support traditional time-based schools are organized by courses or classes— not students—thus it is very difficult to generate a picture of how students are advancing across disciplines and over the years.

In early stages of the transition, most districts collect data on how students are progressing within the academic disciplines. As the competency-based system is further implemented, tracking of data on student learning often expands to include habits of learning, the type of learning experiences to ensure students are having adequate opportunities to apply learning in real-world settings or projects, and a broader set of domains. Bob Crumley explains, "It's important to send a message that the state testing indicators aren't the end all, even if that's the focus of state legislators. It sends a powerful message when the state only tests reading, writing, and math but not social studies or employability skills. As a district, we had to put into place a system that created a meaningful and balanced way to talk about student progress and our effectiveness in all areas. We believe all content areas are equally important. We dedicate staff development and resources on all ten content areas. We monitor progress and celebrate growth in all ten areas."

While stitching and patching together systems that require teachers to enter information into two systems can serve as a stop gap fix in the short run, this is absolutely unsustainable in the long run. New options for next generation learning platforms that are taking into consideration the needs of competency-based schools are beginning to emerge. Some districts are creating customized systems in partnership with vendors. Schools purchasing new products or working with small vendors may be frustrated with inadequate product support, and creating customized systems will raise issues of its own. It is best if a district takes the time, as Fulton County Schools is doing, to develop an enterprise architecture to guide decision making. The process of designing a full enterprise architecture requires districts to clarify—and, if need be, redefine—the core functions of district and school operations and the data needed to support it. The bottom line is that districts will make decisions based on local considerations and the urgency of their need to create transparency for teachers and students to track progress and help focus instructional support to ensure students are continuing to advance.

In addition to developing integrated management systems, districts will need to nurture the culture and capacity for data-driven learning. The student data for personalizing learning with a culture of continuous improvement can be deeply empowering to all the members of a school community. Students and parents can monitor progress in close to real-time. Teachers can more easily personalize education for students' needs, monitor progress, and see where they need to improve their skills. Principals can identify early on when there are students struggling in a number of disciplines or transitioning from steady progress to a slower rate of learning.

Integrated information management systems and blended learning can power personalized models and help bring them to scale. Data-driven instruction will require that teachers expand their skills. As reported by iNACOL, teachers will need to build their technical skills, competencies, and capacity to use data, including the ability to:

- Use qualitative and quantitative data to understand individual skills, gaps, strengths, weaknesses, interests, and aspirations of each student, and use that information to personalize learning experiences;
- Use data from multiple sources to inform and adjust individual student instruction and groupings; and

- Create ways to move ownership and analysis of data to students to promote independent learning. Continually evaluate technologies, tools, and instructional strategies to ensure their effectiveness.[3]

As districts and schools begin the process of designing information systems, it is important to keep the decisions about operations and data-driven instruction in balance with the availability and capacity of the technology. For example, as teachers build their capacity to manage flexible personalized learning environments, they will be generating data on student learning through direct observation, formative assessments, and in dialogue with students. It is important to consider in advance how much assessment data teachers are going to need to track, analyze, and adjust for instruction in relation to student progress—and then look at the degree of ease in digitally managing this information. Districts have learned to stay focused on the most important items to track so teachers can concentrate on providing responsive instructional support.

In developing an integrated learning system, districts will also want to consider how it enhances student ownership of how, when, where, and what they are learning. In making design choices about the information systems, districts have an expanded understanding of end users and are thinking about how students, parents, teachers, PLCs or departments, principals, and district staff can use data to enhance learning and increase the agility of the system. For example, dashboards can be created that facilitate the use of data from different stakeholder perspectives, thereby empowering teachers and students and helping to inform conversations about instruction and daily operations.

As districts continue to deepen their implementation of competency education, it is anticipated that a deeper understanding of the system requirements and capabilities for a comprehensive integrated learning system will be developed. Such a system provides the platform for a school's learning environment by enabling the management, delivery, and tracking of student-centered learning, and includes robust reporting and analytics capabilities. An effective and well-designed information system is an important tool for educators to input and analyze data about their students; to curate instructional materials; to track student mastery; to support students in documenting their work and progress toward mastery; and to communicate with students and their families about their progress. An integrated learning information system could also provide data to school and district staff on the use of instructional materials and their impact on student performance.[4]

LESSONS LEARNED AND LEADERSHIP OPPORTUNITIES

- When writing requests for proposals (RFPs) for an information management system, start with describing the desired functionality (the ability of the system to accomplish a goal) rather than a list of features (tools or features). An RFP that is a long shopping list of features can cause difficulty in implementation later on. When using functionality, district and school leaders will need to describe use cases that can help them think through how single or multiple products will help meet their goals. This is particularly important for competency-based districts, as there are new functions being developed such as monitoring the level of the depth of knowledge students are demonstrating.

- Districts will want to begin to build their analytical capacity to better support principals in designing and using management and exception reports as well as rethinking performance metrics for the system, such as doing cost-benefit analyses. How much learning is happening per unit of time? What strategies are working to address the needs of students not yet proficient? What are the most effective approaches? What is the most cost-effective use of resources?

■ Be careful of expecting a one-solution approach and, alternatively, cobbling together systems that don't integrate well. Begin with an enterprise architecture approach. New platforms and technology tools are emerging that will better help meet district need expectations for data and information management, as well as content and learning management.

B. Addressing the Needs of Struggling Students

After the first few years of transition, districts begin to have the bandwidth to look more deeply at where students are not advancing or are at a lower level academically than their age-based grade. Although not necessarily done in a linear fashion, there are three ways that districts and schools begin to respond to struggling students. First, they create strategies and direct more resources to struggling students. Second, they begin to explore more deeply how habits of learning impact student achievement, building out their capacity to nurture students. Third, they seek out ways to improve instruction overall so that more teachers within the school have the disciplinary knowledge to help students advance.

At Sanborn Regional High School, the Freshmen Learning Communities are designed to help ninth graders build the skills they need for success and identify where students need additional support. They are finding that the conversations about students with special education needs are more focused on learning and progress than behaviors. The understanding of standards, differentiated instruction, and accommodations for assessments has become much more clear and intentional.

Pittsfield Middle and High School (PMHS) is exploring different ways to respond to the needs of students who are struggling or enter school more than one year behind in grade level. They've developed a strong intervention system, with an emphasis on reaching students in middle school. They have reading and math specialists and are providing double doses of reading and math. They also are reaching into elementary school with a special education teacher at every grade level, working to help students learn foundational skills.

Students receive more time, support, and instruction until they succeed.

High school is harder, as many of the students who are struggling have given up and don't want to be in school at all. PMHS worked with the Virtual Learning Academy Charter School to provide competency recovery for students. They then began to build the capacity for competency recovery into Pittsfield, with resources set aside to support students during the summer. They also are exploring ways to use personalized learning to respond to the needs of struggling students, creating opportunities to build their skills through areas of interest instead of just repeating courses.

Lindsay Unified School District continues to innovate to better support students who don't have the skills they need. They have expanded the capacity of teachers to support literacy across the curriculum to better respond to English language learner students at the bridging level. They have added special programming for incoming freshmen who have weak foundational skills, and they offer online learning to fill gaps and build fluency. They have expanded their emphasis on habits of learning, what they refer to as lifelong learning skills, to be more powerful in engaging students and asking them to reflect on the skills they need to succeed. They are now beginning to think about ways they can better serve the group of students that are disengaging from high school by offering more flexibility, opportunities to work and take college courses, and support to address issues in their lives that may be getting in the way of school.

C. Revisiting Shared Vision and Instructional Model

Districts can keep the shared vision alive by periodically revisiting it in partnership with their communities. This provides an opportunity for district and school leadership to engage new members of the community in the vision, continue to address the concerns of skeptics, and, if the demographics of the community are changing, revise the vision to encompass their vision for their children.

Similarly, engaging educators in revising the instructional model periodically is important. Rick Schreiber from the Reinventing Schools Coalition advises districts to strive to develop regular cycles for making adjustments. This allows schools to collect input over time and to consider that input and the reasoning behind the suggestions in a cohesive process.

Schools will vary in how much time they need to become comfortable with the new instructional design and when they are ready to begin a revision process. Depending on the rollout strategy used within a school, principals and district leaders will need to determine when is the best time to engage in revision based on the progress of their schools.

As teachers revisit the instructional model, it is likely that they will want to touch on the overall pedagogical approach, as well. Their understanding of motivating students and instruction and assessment will be growing, and they will likely want to enhance the description of the school's approach as well as the I&A model. For example, after a few years of implementation, Chugach began to monitor the instructional approach that students were using to learn. Based on a belief that it is important for students to have varied learning experiences (including direct instruction, interdisciplinary units, performance tasks, and independent learning), the schools and district staff use their AIMS web-based information management system to ensure that students are receiving a balanced approach to learning.

In Pittsfield, teachers have engaged in rich conversation about the implications of student voice and choice within the learning process. Former Dean of Instruction Sue Graham explained that as teachers unpack the

standards and competencies to identify the enduring questions, they begin to ask, "What are the different ways students can get to those competencies?" She pointed out that the depth of knowledge teachers have in their content area makes a difference. The more knowledgeable teachers are of the discipline and the competencies, the more comfortable they are in offering flexibility to their students. Increasingly, teachers are starting to understand that if they don't know where students struggle and where the misconceptions are occurring, they are limited in how they can help students overcome them.

Other areas where districts are strengthening their approach include investing in knowledge on learning progressions, building systems of performance-based assessments that lift the level of knowledge to ensure students are able to apply skills, and developing a cohesive approach to helping students build habits of learning.

D. Staying the Course

I don't manage through memorandum. I don't know the last time I made a district-wide mandate. They just don't work because there is no ownership. Practices are likely to be implemented at a minimal level and may slip away under new leadership. By having the chance to be part of the process, our team sees the value in decisions regarding district operations and the instructional model. By having a chance to do their own inquiry, they are developing their own understanding about the instructional approaches they can fully integrate into their own practice. It may take longer, but the investment in the process is well worth it.

– Dr. Bob Crumley, Superintendent, Chugach School District

Many districts are converting to competency education in states that have not yet begun to take the steps toward creating the vision and policies to support competency education. Even in states that have embraced competency education, leaders may need to respond to policies that have not yet been re-aligned. Thus, leaders must learn to stay true to their vision and purpose in navigating state policy. They may turn mandates into opportunities or actively work in partnership to co-create the new policy infrastructure. Essentially, they operate beyond the boundaries of the policies so that decision-making continues to be student-centered.

One of the leadership functions needed to stay the course is being able to turn top-down compliance requirements into opportunities to reinforce the empowered culture of learning and improvement. Bob Crumley talks about how he manages mandates by stating, "I've learned to see mandates from the state as opportunities. We will meet the letter of the law, but we aren't going to let the tail wag the dog. For example, we have a state mandate about including state assessment scores in teacher evaluations. We have a great teacher evaluation tool developed by teachers and our administrative team. I'm not going to make any changes to the evaluation tool that causes a loss of ownership. Instead, I'm going to tell our teachers that there are state requirements we need to meet, and we'll take this opportunity to see if we can improve the evaluation tool to help us get better at serving our kids. If we said that we were doing it only because the state required us to, it would send the wrong message to teachers and students. We look to see the value and opportunities that develop when outside forces require us to change and adapt. Continuous improvement is a core value and process at Chugach School District."

States and districts are also finding ways to work together to advance competency education. For example, four districts in New Hampshire are partnering with the Department of Education to pilot the development of local performance-based assessments that will eventually lead to a state-wide system. These assessments, known as Performance Assessment for Competency Education or PACE, are designed to provide richer feedback to teachers and students in a much more timely fashion than state assessment systems.

Brian Stack advises school and district leaders that, "Making the transition from traditional to competency-based grading is messy. No matter how much you plan for it, administrators and teachers will feel a sense of building the plane while flying it in those first few years of implementation. Stay the course in the face of adversity. Stay true to yourself and to the model. Trust that your teachers will stand with you, and together you will face the challenges that will lie ahead and find a way to work through them as a school community. Your patience and persistence will be rewarded."

Bottom line, leaders will need to turn to shared leadership strategies to empower educators and engage the community through the ups and downs of the change process, even though there will be pressure to become the sole decision-maker.

Students show what they know.

Endnotes

[1] Marzano High Reliability Schools, Marzano Research. See http://www.marzanoresearch.com/hrs/high-reliability-schools.

[2] See the American Society for Quality for more information on continuous improvement.

[3] Allison Powell, Beth Rabbitt, and Kathryn Kennedy. Blended Learning Teacher Competency Framework, iNACOL (October 2014).

[4] In 2015, iNACOL will launch a structured effort with districts to examine the specific set of system requirements and functional capabilities for an integrated learning system to manage student-centered learning.

Other Issue Briefs Available at CompetencyWorks

- Maximizing Competency Education and Blended Learning: Insights from Experts by Susan Patrick and Chris Sturgis, March 2015

- A K–12 Federal Policy Framework for Competency Education: Building Capacity for Systems Change by Maria Worthen and Lillian Pace, February 2014

- Progress and Proficiency: Redesigning Grading for Competency Education by Chris Sturgis, January 2014

- Necessary for Success: Building Mastery of World-Class Skills – A State Policymakers Guide to Competency Education by Susan Patrick and Chris Sturgis, February 2013

- Re-Engineering Information Technology: Design Considerations for Competency Education by Liz Glowa, February 2013

- The Learning Edge: Supporting Student Success in a Competency-Based Learning Environment by Laura Shubilla and Chris Sturgis, December 2012

- The Art and Science of Designing Competencies by Chris Sturgis, August 2012

- It's Not a Matter of Time: Highlights from the 2011 Competency-Based Summit by Chris Sturgis, Susan Patrick and Linda Pittenger, July 2011

- Cracking the Code: Synchronizing Policy and Practice for Performance-Based Learning by Susan Patrick and Chris Sturgis, July 2011

- Clearing the Path: Creating Innovation Space for Serving Over-age, Under-credited Students in Competency-Based Pathways by Chris Sturgis, Bob Rath, Ephraim Weisstein and Susan Patrick, December 2010

- When Success is the Only Option: Designing Competency-Based Pathways for Next Generation Learning by Chris Sturgis and Susan Patrick, November 2010