

MARCHING TOWARDS COMPETENCY

Competency Based Learning: Instruction that Matches the Needs of Each Student

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In theory, the choice is simple. Continue to implement a time-bound; age-based; one-size-fits-all curriculum-driven instructional model that has not served us well for many decades. Or choose to develop a personalized competency-based learning system, which identifies crucial learning outcomes, gives students the instruction and practice they need at their level of readiness, and monitors and adjusts instruction for as long as needed until competency is fully achieved.



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The curriculum-driven educational model that most of us know as typical school instruction was designed for a different day and age. More than 150 years ago, Horace Mann chose the Prussian educational model for the first public schools in Massachusetts, and this model became the standard for most American and European school systems. A standard curriculum was devised for each grade level, intended to give students an overview of important reading, writing, and civics and mathematics instruction.

During the latter part of the 19th century most students went to school for only a few years, often inconsistently if needed for work at home or on the farm. It was enough. Large numbers of successful readers, mathematicians, and life-long learners were not needed by society at that time. Success for all was not a consideration in the design of this system of teaching and learning. A standard curriculum informed teachers as to what to cover in each grade. Testing followed one-size-fits-all coverage, which helped sort kids into levels of success, which were an indication of who

should stay in school. These were the basic design factors in the cover-test-sort (CTS) instructional model, used in a time when our society needed only a few good readers, mathematicians and life-long learners. We continue to use this same model in most schools today.

Lists of content standards define what will be “covered” in each grade or subject. National assessments and a plethora of local summative assessment systems are used to measure learning after the fact. In our efforts to improve national outcomes, we have taken this system designed for a pre-industrial society and put it on steroids. In the name of rigor, we’ve increased the quantity of content to be covered at each grade level. We’ve pushed our expectation for content coverage into earlier grades. We’ve identified bodies of knowledge (i.e. Algebra 2) and decided that every student must pass that course even if they do not have the fundamental understandings (i.e. number sense) to comprehend or use those skills. We test students. We grade teachers. We rate schools. We race through the delivery of so much standardized content that the joy of learning is generally sucked out of our classrooms.



The Cover Test Sort education model was never designed to help all students become successful learners, expert readers or skilled mathematicians. But it generally served the needs of society in the late 19th and early 20th century. In recent decades, as learning and complex thinking skills have become more important for us to develop the academic and problem-solving skills that lead to good jobs and social opportunity, the CTS education model is failing our society. All students are limited by standardized one-size-fits-all instruction, but it is a special catastrophe for vulnerable children who are less able to keep up with the pace of instruction.

- By the beginning of fourth grade only 34 percent of American children are at proficient reading levels (National Assessment of Educational Progress, 2013)
- Only 20 percent of fourth grade children who are eligible for free or reduced lunch are at proficient reading levels (National Assessment of Educational Progress, 2013)
- Among 12th grade students — remember that a significant group of students has already dropped out by this point — 26 percent score at or above proficient levels in math, and 38 percent are proficient or better in reading (National Assessment of Educational Progress, 2013)
- Among African American 12th grade students tested, seven percent are proficient or better in math and 16 percent are proficient or better in reading (National Assessment of Educational Progress, 2013)
- Each year about a million students leave high school without a diploma

These are the expected results of a system designed to “cover” standardized content, test students, give them grades, and then move forward in the curriculum. Since the early 1970s, the National Assessment of Educational Progress has monitored student-learning outcomes in each state and across the nation. After all the political shouting, after all the school reform initiatives, after all the billions of dollars spent on school reform, NAEP longitudinal data shows no/zero/zip/nada significant progress for 17-year-old American students since the early 1970s.

Competency-based learning offers us a different systems model for teaching and learning. Instead of standardized one-size-fits-all instruction, competency is personalized for every essential skill along the pathways to higher levels of skill and knowledge. The architecture of the competency-based system is based on the following principles:

- Clearly identify a small set of crucial learning outcomes, and learning pathways to higher level skills
- Use systematic formative assessment to determine the readiness levels of your students in relation to essential outcomes
- Offer informed instruction, at the student’s personal level of readiness
- Use ongoing monitoring of progress until these skills/objectives are deeply understood (competency)
- Allow students to move on to more advanced learning as soon as they are ready

This is not a new way of thinking about teaching and learning. Every good coach, music teacher and scout leader understands the importance of competency. They give kids what they need, at any pace necessary to keep children engaged, confident and learning.

This competency-based learning model is familiar to every parent who has ever taught a child to drive a car, catch a ball or learn to read. When driving with your teenager, you pick a quiet time of day, a scarcely used road, turn off the radio, and carefully practice basic skills before moving on to more challenging driving situations. While throwing and catching with a five year old, parents carefully observe the child so that every throw is delivered in a way that allows the kid a chance to be successful. At reading time, parents choose a familiar book that allows the child to be happily engaged in the reading process. Formative assessment is ongoing, continuous, leading to immediate response on your part to help your child be successful.

Fortunately for us all, some well-established education systems clearly understand the importance of formative assessment and competency-based learning. Airplane pilot training allows students all the time or repetitions needed to pass ground school. Time is a variable, not a constant. The trainee will practice every essential skill for flying every level of aircraft until it is proficient. There are no acceptable “C” grades for landing a plane. No matter how long it takes, students work until the essential skills are solid.

Competency	Cover Test Sort
Clearly identify a small set of crucial learning outcomes, and learning pathways to higher level skills.	Develop long lists of content standards describing what should be “covered” for all students in a grade or course.
Use systematic formative assessment to determine the readiness levels of your students in relation to essential outcomes. Offer informed instruction, at the student’s personal level of readiness.	Ignore assessment of learning readiness and proceed to deliver content. With a group of students having several years of variance in knowledge and skill levels, deliver content according to a rigid pacing guide to all students. Ignore the research on the impact of delivering instruction within each student’s instructional zone.
Use ongoing monitoring of progress until these essential skills/objectives are deeply understood (competency) by each student.	Use summative assessment at the end of each unit, quarter, or year which compares the learning outcomes of students but does not significantly shape the delivery of instruction to these students during this grade or course.
Allow students to move on to more advanced learning as soon as they are ready.	Allow students to move on to more advanced learning as soon as they are ready. Require students who already have the skills and content to sit through the delivery of this one-size-fits-all instruction. Require students who are failing to understand the content to sit through the delivery of this content along with their peers. Give grades using some variation of a Bell Curve which do not reflect whether content and skills were learned to competency.

Most vocational trades use a similar learning system design. To become an electrician, you must learn and understand the fundamentals, then serve as an apprentice for years. Only after you have demonstrated your ability to understand and apply all essential skills do you earn your certificate as a master electrician.

Technical degrees and certificates are based on the same competency-based model of learning. To earn one of many Microsoft skill certificates you must learn and demonstrate every skill in the sequence of skills leading to competency. The Khan Academy uses the same model for instructional design. Students may choose to use video lessons, written lessons, practice activities, or tutorials, but to move forward in the program you must first establish competency. The ever-growing world of digital competency-based learning that can be accessed anytime, anyplace, at any rate, both in blended and stand-alone learning formats.

While many educators are unfamiliar with competency-based learning as a concept, the education world has already begun to shift towards this model. Beginning in 2009-10 New Hampshire school districts were required to create standards for competency in relation to high school graduation requirements. Maine has a strategic plan for implementing competency-based learning and demonstration of proficiency for high school graduation beginning in 2015. Colorado, Vermont and other states are actively developing competency models. High school, community college, and local employer collaborations have developed in many parts of the country focusing on preparing students

for locally available high-skill jobs. Digital and blended learning options are available in every state. The Early Learning Foundation uses a competency framework for its Preschool through Grade 3 district initiatives, building the foundation skills for lifelong learning at the most critical phase in the development of a child.

The limitations of a time bound learning system are starting to be widely recognized among institutions of higher learning. Western Governors University was chartered in 1996 to use competencies rather than seat time as the measure of outcomes. It has grown to become an accredited national university serving more than 50,000 students in all 50 states. Many online and land based universities have joined the move toward competency. In recent years, large public universities have moved to devise competency-based programs, like the Flexible Option program at the University of Wisconsin, Purdue's transdisciplinary bachelor's program at the Purdue Polytechnic Institute, and the Master's in Public Health Education at the University of Michigan Medical School.

The European Union has identified key competencies in its European Framework of Key Competences for Lifelong Learning (2007). In British Columbia an initiative for the development of competency is described in the British Columbia Education Plan (2015), and detailed in Exploring Curriculum Design, Transforming Curriculum and Assessment (2013). Alberta's development plan for competency-based learning is described in Framework for Student Learning: Competencies for Engaged Thinkers and Ethical Citizens with an Entrepreneurial Spirit (2011). Competency-based learning is the recognized training method for vocational education and training (VET) in Australia.

We are at the dawn of the age of personalized, flexible, lifelong learning. Students will build essential skills at their own level and progress through learning pathways at their own pace. The limitations of poor or vulnerable learners will no longer be a life sentence. They will develop competency one tier at a time, taking as much time as needed. For many, competency will be the antidote to poverty.

With the availability of competency-based learning models, persistence and personal initiative will allow learners to develop new skills and new opportunities throughout life. Students will see themselves as active learners, not as passive recipients of some drudgery imposed by others.

For educators who are ready to innovate, this will be the most exciting time in the history of education. We have barely scratched the surface of the potential for human learning. Decades of discovery and transformation lie ahead. Thoughtful innovators will create pathways to knowledge and competent skills that open the doors to opportunity. Learning matters and new ways to learn will be developed for classrooms, homes, communities, and companies and in the digital world.

We've reached a time for choosing. Some schools, districts, and states will hold onto the patterns from our past for as long as they can. They will choose to ignore issues of efficacy and equity. They will deny the economic and social costs of continuing our curriculum driven system because that's how our schools work, and change would be hard. In other schools, districts, and states, leaders have already begun the transformation. We've reached a unique moment in time. The ideas, models, and tools are here, allowing us to build a system that meets the needs of learners in the age of innovation, technology, information and lifelong learning.

Bob Sornson is an award-winning author and consultant who teaches about systems and practices which support competency-based learning and early learning success. He works internationally with school districts, universities and parent organizations. His many books include "Over-Tested and Under-Prepared: Using Competency Based Learning to Transform Our Schools" (Routledge), "Fanatically Formative" (Corwin Press), and "Essential Math Skills, Pre-K to Grade 3" (Shell Education).

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