Over-Tested and Under-Prepared

The curriculum-driven instructional model has been the standard method of teaching for more than a century, but it is consistently failing to produce well-educated citizens and lifelong learners. Pressured by standardized testing and rigid pacing guidelines, teachers are forced to cover too much content too quickly, without being able to meet the needs of individual students. In this powerful new book from acclaimed author and speaker Bob Sornson, you'll learn how shifting from curriculum-based instruction to competency based learning can help students become more successful, confident, and engaged learners. Topics include:

- Understanding the curriculum-driven model and the problems with "cover and sort" methodology;
- Making the transition from curriculum-driven to competency based learning;
- Identifying crucial learning outcomes and giving students all the time and instruction needed to fully master these outcomes;
- Building a positive teaching and learning environment;
- And more!

Each chapter is short and easy to digest, and provides compelling research, strategies, and anecdotes to inspire conversation and action. Teachers, administrators, and community leaders will all find helpful resources and arguments for re-working our current educational system into a new, dynamic model of teaching and learning.

Bob Sornson is the founder of the Early Learning Foundation and is a former classroom teacher and school administrator. He works with schools and education organizations across the country, focusing primarily on developing comprehensive programs that support early learning success.

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Using Competency Based Learning to Transform Our Schools

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To every educator who knows there is a better way and who holds on to the belief that somehow adults can thoughtfully consider, collaborate, and find that way.

To every parent who believes that children can fall in love with learning and wants each child to have an opportunity to find success.

To every child who loves to learn.

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About the Author

Courtesy of Lynn Gregg

Bob Sornson is an education leader calling for programs and practices that support competency based learning, early learning success, and high-quality early childhood learning programs. He is the father of four grown children and works internationally with school districts, universities, and parent organizations.

Born and raised in Detroit, MI, along with his six siblings, Bob earned a bachelor's and master's degree at the University of Michigan, an education specialist degree from Central Michigan University, and his Ph.D. from Andrews University. For over thirty years, he worked as a teacher and as an administrator in Michigan public schools, developed an acclaimed model early learning success initiative, and in 2001 founded the **Early Learning Foundation**.

A prolific author, Bob has written best-selling books for educators, parents, and children, along with many journal publications. His books include *Essential Math Skills* (Shell Education), *Fanatically Formative* (Corwin Press), *Stand in My Shoes: Kids Learning about Empathy* (Love and Logic Press), *The Juice Box Bully* (Early Learning Foundation Press), *Teaching and Joy* (ASCD), and *Creating Classrooms Where Teachers Love to Teach and Students Love to Learn* (Love and Logic Press). He has offered workshops and keynotes in forty-seven states and in other nations.

Bob Sornson is dedicated to giving far more students a real chance for success. Schools that cover, test, and sort do not

effectively serve the needs of kids, families, or society. Nor do schools that allow students to fall into patterns of struggle and failure in the early years of learning. Nor do parents who do not yet know how to build positive family routines, set limits without anger, and help build the solid base of connection and love that allow children to thrive and build purposeful lives. In modern society, we are challenged to use the wealth of knowledge and information available to us to build systems and societies in which kids thrive, care for each other, demonstrate personal character, love to learn, and work collaboratively.

Bob's work involves developing thought patterns, behavior patterns, and institutional patterns to build a world we are proud to bequeath to our children and grandchildren. He lives with his wife Nancy in Brighton, MI, and can be contacted at earlylearningfoundation.com.

Acknowledgments

After more than three decades of "school reform," the disappointing implementation and results of No Child Left Behind, and the thinly disguised federalization of schools that was Race to the Top, the American public has become disheartened. They question whether education leaders and our government have the capacity to thoughtfully consider and implement a plan for the meaningful improvement of our system of education. Many educators are discouraged. Principals and teachers wonder where the joy went. Young men and women with the capacity to be extraordinary teachers look for another path.

And yet, everywhere I travel there are educators, parents, and community leaders who still have that spark in their eyes, holding on to a vision of learning systems that effectively serve students of every race and level of affluence, giving our children a chance to compete in the global society, inspiring a love of learning that can last a lifetime. This book is for you.

> The ultimate measure of a man is not where he stands in moments of comfort and convenience, but where he stands at times of challenge and controversy.
>
> —Martin Luther King, Jr.

To my great fortune, I get to meet and work with people who believe in their hearts and souls that we can build educational systems and institutions that truly serve our students, respecting their differences and honoring their strengths. They are not deterred from effective action by political drama and smothering bureaucracies. They are committed to building a better world for our children, and schools that work is part of that vision. They are found from Mississippi to Michigan, from

California to Maine, and in nations around the world. They inspire me.

I am especially grateful to the following people who made this book possible:

To Lauren Davis, my editor at Routledge, who from the first day she received my book proposal understood the message and believed there is an audience, and whose enthusiasm for this work moved it forward with astonishing positive energy.

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To Rebecca, Matt, Alicia, and Molly, whose lives inspire my belief that ideas can make a difference and that I might find a way to shine a light.

To Nancy, who walks the path with me, whose kindness and decency surrounds every project and each day.

Reader's Guide

This book describes a model of learning unlike the one most of us experienced as students. It is my hope that readers will respond to the clear need for improved systems and refrain from the ever handy "We can't possibly do that because it has not been done like that before" response. Instead, imagine the creation of a new way, based on solid science and a heavy dose of common sense.

The first chapters begin with a look at what's possible, just enough to fill your heart with hope. Then we look back at the intended design of the education model we've used in schools for well more than a hundred years, with an eye for understanding why it was built as it is. By understanding the basic architecture of our system, we can more fully understand why it no longer serves the vast majority of students who desperately need an opportunity to become successful learners. Chapters nine through seventeen describe a new way of thinking about learning, in school and in life. Subsequent chapters describe the many ongoing efforts to build and use competency based learning systems. In the final chapters, we consider the steps you might take to lead the transformation in your school or community.

Educators, parents, students, and community leaders can study this text with many varied purposes, perhaps including the following:

- Read and share. Create a new vision for schools and learning that better serves students, parents, communities, and employers. Become an idea leader in your community.
- Read with the purpose of gathering resources or specific ideas for the transformation you already want to occur.
- Create personal or professional learning communities, using this book as a catalyst to dialog and collaboration toward the creation of new learning systems.

- Identify crucial learning outcomes for yourself or your organization, and use the many resources in this book to help you design a plan for sustained learning.
- Develop a leadership team to transform your schools or to build synergy between learning organizations, and build your transformation plan with the insights of those who have already traveled this path.

> You have brains in your head. You have feet in your shoes. You can steer yourself any direction you choose.
>
> —Dr. Seuss

Introduction

With only a month remaining in the school year, a young high school biology teacher is confronted with an unpleasant challenge. Three more chapters to go. He's teaching an honors class, but for the past several months he's been struggling to manage behavior and keep his students on-task. Many of them are frustrated and struggling to understand the material. Some have already disengaged from the learning process, having decided that science is too hard, not fun, and incredibly boring.

Three more chapters, with content including Population Ecology, Behavioral Biology, Community Biology, Ecosystems, and Conservation Biology. All the other Bio teachers are on-track to finish every chapter in the text, and the district clearly expects him to cover all this content. So he will rush through instruction for the science concepts he loves with students who are already disinterested or disconnected.

Half-way through the year, a third grade teacher prepares to move on to the next math lesson. She's been teaching for many years, but it is getting harder. The pressure of the state assessment looms. Looking around her classroom, she can easily identify which students love math. There are only a few. The others don't get it. The math program moves so quickly through the material. It feels like a race.

Her district has adopted a math program that allows no room for variance. Everyone gets the same lesson on the same day. Some of the kids lack basic number sense. Many of them have memorized facts and formulas but do not fully comprehend why these rules apply. Spiraling, they told her. Don't slow down. In a few months the expertly designed math curriculum will spiral around and cover the same material, so if students don't understand basic concepts now, just keep going. Teaching math used to be fun, but not anymore.

It's the beginning of the year. A sixth grade teacher considers her new class, goofy adolescents vying for attention and respect, searching for social connection, hoping for safety and status. But in her hands is the pacing guide, the guide for what must be taught, how quickly, and in what sequence.

She looks at her beautiful students. Every impulse in her begs to get to know them, build relationships with them. She wants to build a positive classroom culture, help them get to know each other, set standards for how we treat others and want to be treated. She would like to assess their learning needs and figure out each child's strengths. She would like to find out their special interests, the things that might motivate them to work a little harder. But she cannot.

In response to diminished outcomes on the state test, her district has adopted a more rigorous curriculum, a pacing guide for every subject, and biweekly assessments. Each day she is required to write the code for the CCSS standards that are being addressed by today's lessons on the whiteboard. If an administrator comes into the classroom and finds that she is not focused on those standards, she could be reprimanded.

Scanning her classroom, she sees the students who are nervous and socially awkward. She pauses, makes eye contact with each of them, and smiles. She notices the kids who are wiggly, who need movement and lots of practice learning to be calm and self-regulated. Then glancing at the pacing guide, she forges ahead. Ready or not, here it comes.

In the 21st century, good teachers are being asked to use the supercharged version of a curriculum-driven instructional model that treats kids as if they were learning on an assembly line. Covering way too much content at an unreasonable rate, with rigid pacing guides that make it impossible to find time to shape instruction to meet the individual needs of students, the system is breaking down. In spite of teaching to the test, our children are not doing better on international comparisons or compared to previous decades. Good teachers are discouraged. Many of the best and brightest college students cannot imagine subjecting themselves to working in such a broken system. State and national legislators fiddle mindlessly with our schools,

adding layers of regulation that confuse and befuddle both educators and parents. In the information age, an era in which learning skills and the desire to learn have never been more important, many capable students are not developing the skills needed to achieve economic and personal success.

In this book, we will explore simple ideas that will help teacher-leaders, administrators, and parents create learning systems in which both educators and students have a much better chance to succeed. The steps are simple. Identify crucial learning outcomes. Teach and practice crucial learning outcomes for as long as it takes to develop competency. Design instruction for crucial outcomes in a student's zone of proximal development. Learn to track the progress of each student along the pathways to crucial outcomes. Include students in the planning process for developing advanced-level learning plans. Deliver instruction and monitor progress in all the domains of development that contribute to a life of learning and success.

Beginning with the end in mind, we will reflect on a new vision for our schools, along with strategies to convert an obsolete system into a dynamic model of teaching and learning. We will carefully consider the history of how our present system was developed, not to criticize but to understand. Then we will look at the learning and implementation challenges we may face at every level of instruction and consider steps forward. Change is challenging. Transformation is possible. And this is the time for both in our schools.

Most educators who work in our schools are among the most dedicated and compassionate people in the world. The students who come to our schools need us to do better, not by adding more pressure to our existing structure, but by re-conceptualizing our system to meet the needs of modern learners. Learning outcomes have never been more important. This book suggests a change in the underlying architecture of our design for education that will allow us to make teaching an honor and pleasure and to help students fall in love with learning for life.

We are at the inception of the most exciting time in the history of education. For those who are ready to innovate, the

opportunities to lead and create are endless. We have barely scratched the surface of the potential for human learning. Decades of discovery and transformation lie ahead, and some of you reading this book will likely lead the way. From the ashes of decades of failed school reform, you will construct education systems that bring learning alive for our children, offer the most effective antidote to poverty, bring respect and collegiality back to the profession of teaching, and create a more productive and peaceful world for all our children.

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Personalized Learning and Competency

A competency based learning system begins with the premise that we truly want each student to succeed. Rather than letting the pacing guide dictate the delivery of instruction, students move ahead toward crucial learning outcomes upon demonstrating the key learning milestones along the path to competency. Students will have as many learning opportunities as they need to develop these crucial skills, and each student is guaranteed to have the support needed to continue learning at their own pace as they progress toward crucial outcomes.

This learner-centered model is a significant departure from the more is better, test it harder, winners and losers system we have created in most of our schools. Delivering one-size-fits-all instruction and then sorting out a small percentage of successful learners no longer meets the needs of our society. With a better understanding of how kids learn, and with the information and technology systems that are now available, we can choose to track progress toward crucial outcomes and develop thoughtful pathways to mastery of the skills needed for learning and workplace success.

Much of this is just the application of common sense. In the non-school parts of our lives, whenever a learning goal has been identified as "crucial" we try hard to develop personalized competency based learning experiences for our children. When

teaching a young child to throw and catch, we refuse to follow a pacing guide. Instead we take the time to play, ensure high rates of success, and gradually increase challenge without causing frustration and disengagement. When teaching a teenager to drive a car, wise parents take all the necessary time to practice driving in the school parking lot before moving to the side roads, and all the time needed on the side roads before moving to the main roads, and all the time needed on main roads before moving to the expressways, and all the time needed driving during good weather conditions until allowing your child to drive in more difficult weather.

No rational adult would throw a small hard ball at a child who is not fully able to catch it. Why then does math instruction in most schools consistently throw hardballs at kids who aren't ready?

Math instruction is among the conspicuous failures of US schools. It is a classic example of too much content, delivered too fast, using a rigid pacing process, and advancing students to higher levels of learning without the deep understanding of fundamental concepts and skills needed for long-term success. Consider these kindergarten math skills, which are crucial for understanding higher-level math concepts:

- Has one-to-one correspondence for numbers 1–30;
- Understands combinations to 10;
- Recognizes number groups (2–10) without counting.

One-to-one correspondence is the ability to count concrete objects or movements with accuracy. Some children can say the numerals in sequence but do not yet have the connection to associate "three" with three buttons, "four" with

four buttons, etc. Children lacking one-to-one correspondence might say a number without really understanding its value.

Understanding combinations to 10 includes the ability to use one-to-one correspondence to show you "four buttons", then add "two buttons" and quickly figure out that now there are "six buttons". Using real objects or movements, they can demonstrate any combination of numbers adding up to 10 or less.

Recognizing number groups (2–10) without counting is the ability to look at a domino, or a die, or any pattern of dots, beads, chairs, etc., and quickly name the value. This skill is sometimes called "subitizing" and assumes some understanding of both one-to-one correspondence and combinations.

In a personalized-learning kindergarten environment, children would be carefully monitored for the development of these crucial math skills. Instruction would be matched to the child's readiness, so that some children might practice counting objects, while other children are working combinations. Some children would likely develop every one of these skills by January, while others would need hands-on and movement-based activities for these skills until April or May. Only when a child can perform a skill easily, with a high rate of success, using a variety of learning materials, would they be considered competent.

Each child would be given as much time as needed and as much differentiated learning practice as needed for these essential learning outcomes until competency is well established. But classroom instruction might also include lessons that "introduce, cover, or explore" additional content including measurement, estimation, equations, sets, and many other topics that can be enjoyed in small groups, centers, or whole group settings. Instruction becomes a blend of exploration activities that build a general understanding of math, along with carefully

designed and differentiated instruction aimed toward competency in the specifically designated essential learning outcomes.

In a curriculum-driven kindergarten learning environment, all children would be given the same lesson on the same day in the same way. Early in the year, maybe even from the first day, math instruction would be delivered using worksheets, without access to the touching, moving, feeling experiences which are integral to understanding these basic skills. Students would be encouraged to memorize facts they do not understand or follow a series of steps to get an answer they can only hope might be right. Many of these students would move on to higher grades lacking number sense, not really understanding combination or number values.

If math learning outcomes are important to a child's future **(and they are)**, some skills deserve the time, instruction, and attention to help every child develop competency. Throwing math hardballs at young children creates frustrated, math-phobic students who will disengage from math learning for life. American millennials, tied for last place among the 22 countries evaluated in the OECD Programme for International Assessment of Adult Competencies (ETS, 2015) in math and problem solving, give evidence of the poor outcomes associated with curriculum-driven math instruction.

Competency based learning challenges many of the traditional practices of our schools:

- CBL suggests that instruction be designed to respond to specific student learning needs and support student progress toward clearly defined learning outcomes;
- The competency model requires a capacity for differentiation, allowing students to learn in different ways, and giving all the time needed for the development of proficiency for crucial skills;
- CBL requires the articulation of a clear sequence of learning objectives that lead to the desired outcomes and a plan for on-going assessment of progress.

In the competency model, students are not passed along with significant gaps in understanding that cause them to fall further and further behind. For the identified crucial learning outcomes, instruction is designed to match the developmental readiness of the students, so that they are engaged and challenged but not frustrated. Students advance upon mastery to higher levels of skill and challenge.

Competency based approaches are typically designed around five key elements (Sturgis, 2014):

1. Students advance upon mastery.
2. Competencies include explicit, measurable, transferable learning objectives that empower students.
3. Assessment is meaningful and a positive learning experience for students.
4. Students receive timely, differentiated support based on their individual learning needs.
5. Learning outcomes emphasize competencies that include application and creation of knowledge, along with the development of important skills and dispositions.

Personalized learning leading to competency is in evidence when a high-quality piano teacher carefully observes her student, challenges her to improve by giving her the assignment to learn a beautiful piece of music which is within her ability range, offers timely but not overwhelming suggestions for pacing and hand position, and gives her all the time needed to learn the music and be ready for a successful performance.

Learning is personalized when a computer tech student who studies for a test and comes up short is given immediate feedback on the answers that were incorrect and the opportunity to study some more and take the test again as soon as he is ready.

Personalized learning is built into the structure of quality digital math and reading programs. A clearly defined sequence of skills leads to competency. Essential steps in the sequence cannot be hurried through or avoided. At each step in the sequence of skills, competency must be demonstrated, and then a student moves forward to the next tier of instruction. The Khan Academy is a well-designed example of this structure, which is built with competency as the goal for each student.

A preschool to Grade 3 competency based math system (Sornson, 2014) identifies a competency framework for the early childhood years, including a small set of target math outcomes for each grade. Teachers are encouraged to offer a rich and interesting curriculum filled with activities and projects, while carefully monitoring progress toward this set of crucial outcomes. Some children may need to work on skills from the previous grade level. Others will be working at grade level, and still others will be working on skills from a more advanced level. Proficiency for each crucial skill will only be noted when a student has demonstrated deep understanding, over a period of time, using a variety of learning materials to ensure both understanding and application.

A personalized graduate school program identifies the crucial minimum skills and levels for competency in your field of study, assesses student skill levels, with the help of a mentor designs plans for learning which can include courses, work experiences, independent learning experiences, on-line courses, apprenticeships and other experiences, and then carefully monitors progress toward competency. Some students progress faster than others, and only when competency has been demonstrated for each crucial outcome is the degree awarded.

Personalized learning is in evidence on the job as employees work to attain new skills, are given both written and real life assessments, and develop a personal portfolio of skills that are valuable to the employer and offer opportunities for advancement.

A competency structure values learning over seat time. Accumulated Carnegie units or CEUs are not the coin of the realm in a competency based learning model. Rather, deep learning

and the capacity to apply information and skills are the valued outcomes of competency based learning. A competency structure gives students the time they need to develop a crucial skill or concept. Six weeks may not be enough for some. Other students may be ready to move on more quickly. Lack of competency after the specified time for a course is not a life sentence. Within a competency model of instruction, critical skills are given the necessary time to develop.

A competency based system is designed to help every student become proficient in clearly defined essential outcomes and each of the steps leading to those outcomes. Instruction is designed so that students are in their optimal developmental zone, so that they are challenged but not pushed into frustration and disengagement. In a competency based learning system, students are not passed along from grade to grade with significant gaps in understanding, skill, and application.

> In a proficiency system, failure or poor performance may be part of the student's learning curve, but it is not an outcome.
>
> —Proficiency-Based Instruction and Assessment (Oregon Education Roundtable, 2009)

Crucial learning outcomes warrant personalized competency based learning. When coverage, enrichment, exposure, or an overview are not enough, competency based learning provides the path to achieving these outcomes. We want our children to develop competency before getting a driver's license because basic driving skills are crucial to their survival. Doctors, astronauts, electricians, and computer techs go through a competency based learning program to ensure that every essential skill has been fully developed so that they have the expertise needed for success.

Competency based learning works best when there are clearly defined learning objectives, a step-by-step plan for developing those skills, a careful assessment of the learner's skills

and readiness, instruction at the student's developmental level, continued monitoring of progress, and instruction adjusted to her changing levels of skill until competency is achieved.

Every parent teaching his or her child to ride a bike knows how to design a personalized learning program leading to competency. It may take a year of practice before the training wheels come off. There may be a prolonged period in which you run alongside the bike to steady it as needed. There may even be a bump or bruise along the way, but with patience, your child learns to ride independently with confidence and skill.