In short

CSMlearn developed the free, self-paced online CSM COURSE and low-cost CSM CERTIFICATE to teach and verify key essentials of HIGH PERFORMANCE that underlie success in education and work. CSM addresses not only with what a person knows, but how they use that knowledge to solve problems, how they learn new skills on their own, their attention-to-detail, their persistence and self-reliance, and their "I can" attitude and self-efficacy.

We are now piloting High Performance High Schools, where CSM is used across the school community – not only students, but also the principal, teachers, office, cafeteria and janitorial staff, and even parents – to build a spirit of communal purpose, effort, excellence, accomplishment and pride.

HIGH PERFORMANCE

A shortlist of what's needed for success in school, college, work and life would include the following:

- deep, core math and literacy skills
- problem-solving strategies and mindset
- the ability to learn independently
- attention-to-detail and conscientiousness
- persistence, self-reliance and resilience
- high personal expectations - *"I care about my work, and do things right"*
- self-efficacy: *the belief that you can succeed at what you do, gained from personal experience*

High personal expectations: Three-quarters of school and college graduates consistently earned "B" and "C" grades. It's not only that their skills are questionable, but these students have been taught for years that "B" and "C" work is just fine, and after being told year after year that they are "B" and "C" performers, they internalize that they are mediocre.

These HIGH PERFORMANCE skills and traits are self-evidently critical, yet structurally, accountability measures guide conventional education and training to: ➢ be satisfied with superficial math and literacy ➢ largely ignore problem-solving in favor of procedural skills on standardized tests ➢ and for the most part, unintentionally undermine all of the remaining skills and traits. **This is the fundamental system failure** that explains the relative lack of progress in secondary and postsecondary education over the last decades.
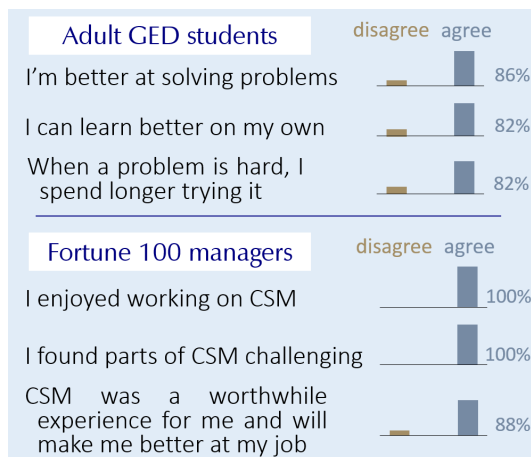
CSM

CSMlearn has developed the CSM COURSE, a self-paced online course that uses next-generation adaptive learning technology to build key HIGH PERFORMANCE skills and traits. The CSM COURSE is the first adaptive learning system that personalizes learning not only for cognitive skills like math and literacy, but also for meta-cognitive skills like problem-solving and the ability to learn independently, and also the non-cognitive traits and mindsets like persistence, self-reliance, attention-to-detail, high personal expectations and self-efficacy. Furthermore, CSM is uniquely sensitive to the fear, low self-esteem and other social-emotional factors that are key stumbling blocks for struggling students, and uses a variety of interventions from educational psychology and behavioral economics to address these.

Because CSM is adaptive, some people can complete it in 15 hours, while others may take more than 75. For students taking CSM in a **one-semester course**, there are supplemental modules that can

challenge students who finish quickly with problem-solving and critical-thinking skills up to advanced college difficulty. *See Appendix A for more information on CSM's innovative curriculum and instruction.*

The CSM COURSE and all associated services (e.g. professional development) are **free** for all users.

On completion of the CSM COURSE, people become eligible for the $45 CSM CERTIFICATE, which is **the first credential of generalized HIGH PERFORMANCE.** The CSM CERTIFICATE also serves as a new and **different type of career-readiness certificate**, certifying that they have key skills that can prepare them for a career. Indeed, CSM is even used by managers in Fortune 1000 companies.

Adult GED students	disagree	agree	
I'm better at solving problems			86%
I can learn better on my own			82%
When a problem is hard, I spend longer trying it			82%

Fortune 100 managers	disagree	agree	
I enjoyed working on CSM			100%
I found parts of CSM challenging			100%
CSM was a worthwhile experience for me and will make me better at my job			88%

CSM and HIGH PERFORMANCE HIGH SCHOOLS

Changing student and school self-efficacy

A High Performance High School is where everyone in the school community is encouraged to take the CSM Course, working together to build their high performance characteristics, cementing a spirit of communal **purpose, effort, excellence, accomplishment and pride**. In this case, "everyone" is meant inclusively to mean the principal, teachers, office, cafeteria and janitorial staff, students, and parents. To cement the sense of accomplishment and pride, all those who complete CSM are recognized in some way – through ceremonies, acknowledgement in newsletters, through displays of certificates in the school foyer, by teachers mounting their own certificates by the classroom door, through wallet cards that students can use for special privileges or discounts to student programs, etc.

Why is everyone encouraged to take CSM, and not simply the students?

- Students are very sensitive to how their tasks are framed, and by having everyone take CSM, this changes the message from "you should take this, because it will be good for you", to "High Performance is something that everyone should develop, even the principal and teachers, and CSM is how we do this".

- When teachers have experienced CSM, they know what the students can do, and can increase the assumed foundational knowledge and abilities in their classes. Furthermore, CSM requires every student to demonstrate A-level performance in all their skills, and teachers can now have higher expectations for students.

- CSM will be challenging even to teachers and principals, and by having CSM as a shared experience with the students, they can commiserate and share triumphs together.

- Having office, cafeteria and janitorial staff participate makes it clear that the school is all one community.

- Parents can now engage directly in the school community, and for some, gain new opportunities (e.g. CSM also serves as GED- or college-preparation).

> **Improving self-efficacy**: When students complete a skill in CSM, they're informed how many people can do that – e.g., that "Only 20% of adults and 40% of 4-year college graduates can do the skill you just completed". The numbers will be different for every skill, but the lesson is always the same – it's not that you're stupid, but that CSM is hard for everyone. Many students have never thought that they could do things that college graduates couldn't do, and after hearing this dozens of times, their self-identity and sense of possibility is expanded.

Most importantly, transforming schools is about building a shared belief and expectation that every student can succeed.

At its heart, CSM is about **self-efficacy**, the deeply help belief that you can succeed, informed by

personal experience of prior success – you know you can succeed because you've done it, and you know how it's done. CSM provides a framework and environment in which everyone can succeed, and it allows students to reflect meta-cognitively on how it occurred.

The more people in a school community that have completed CSM, the more that self-efficacy transforms from an individual feeling to a communal, mutually-reinforcing belief. When teachers know how hard CSM is, and realize that their students can do it, their sense of possibility for their students and their school is changed. When parents realize that their children can do things that they find challenging, belief in the school improves. When students have gained their initial self-efficacy, they can more easily step-up to higher expectations from their teachers and parents.

Ultimately, the success of a High Performance High School comes from a shared sense of purpose, goals, effort, excellence, accomplishment and pride.

The commitment

A central commitment of High Performance High Schools is that everyone participates, including:

- Principals and administrators: it's essential that school leaders drive transformation by earning their CSM Certificate.
- Teacher and counselors: it's a goal that all faculty earn their CSM Certificate, but this can happen over time. Initially, we expect a commitment of roughly half the teachers. As more teachers complete CSM, and as those teachers display their certificates by their classrooms, more teachers will naturally participate.
- Office, cafeteria, janitorial, and other staff: in a High Performance Communities learning community, everyone in the school building should be given the option of participating. To make this an attractive and realistic possibility, staff should be given some paid-time (e.g. 2 hours a week), as well as access to computers, in order to do this.
- Students: while it's best that all students earn their certificates, some schools may not have the open schedule or computer capacity for this to happen at once. A minimum initial goal should be that one grade level at your school will be given a CSM course – e.g. this might be called a "9th grade transition-to-high school" class, "10th grade problem-solving" class, "11th grade college-prep" class, or simply the "High Performance class".
- Parents: you can make CSM available to all parents at your school. For those parents without access to computers, making computer labs available outside of class times (e.g. afternoons and evenings) is beneficial.

Many staff and parents will benefit from having coaches to help them through CSM. CSM coaches are not content experts, but rather mentors and cheerleaders – they don't need to be professional educators. Thus, while the coaches for students will generally be the teaching staff, the coaches for the staff and parents can be provided as well from other staff and parents, volunteers from the community, and even students who have completed CSM.

CSMlearn-sponsored pilots

CSMlearn is now sponsoring High Performance High School pilots – please write to info@csmlearn.com for application materials. The requirements are roughly the commitment given above – that is, you should include a wide range of the school community (the principal, administrators, teachers, counselors, students, staff and parents) in the program. If you have bureaucratic or technology constraints that hinder some aspect of this, please contact us.

As part of becoming a High Performance High School, you will receive the following services for free:

- Everyone, including administrators, faculty, staff, students and parents, will be able to take the CSM Course <u>at no cost</u>.
- On completing CSM, each person will receive a printed CSM Certificate that is mounted for hanging or tabletop display, a CSM wallet card, and free verification of CSM completion on our website <u>at no cost</u>.
- CSMlearn will provide <u>at no cost</u> a display recognizing those that complete CSM that can be placed in the foyer of your school.
- CSMlearn will provide free professional development for faculty <u>at no cost</u>.

The cost to you will be <u>nothing</u> for the first two years (including all technical and implementation support) – if you decide to continue the program afterwards, you will thereafter pay the normal fees (roughly $45 per person for the services listed above).

Why is CSMlearn doing this? We're a mission-driven organization that sees huge turmoil in education with marginal results, and we think that the model is broken. CSM is being **used effectively by thousands of students** in secondary, adult, college and workforce education, and even in Fortune 1000 companies, and we're looking for organizations to take it to the next level and use CSM for organization-wide cultural transformation.

Conclusion

CSM is next-generation learning technology that personalizes instruction in new ways, and attends to the issues of behaviors, attitudes and feelings that hinder the success of struggling students. However, the problems of high schools can't be solved by technology alone, and we're also bringing an entirely new focus on general high performance skills and traits, and addressing them to the entire school community, not just students. High schools excel when everyone believes that they can succeed, and when everyone works together – CSM makes this possible.

Please contact us to learn more, and we look forward to talking with you:

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Appendix A – CSM's next generation adaptive learning
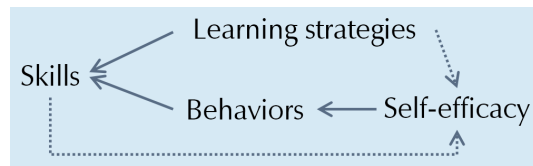
- CSM teaches math, literacy and problem-solving **skills** that truly matter in education and work. CSM uses adaptive learning by applying the Goldilock's Principle: students are taken on a unique path where they always work on skills that are neither too difficult or simple, but "just right", where they need to work hard, but are generally successful.
- CSM teaches **learning strategies** and meta-cognition – e.g. deciding what lessons to read, when to read them, and how deeply to read them; accuracy in self-assessment of when you know the skill; planning and goal-setting; an exploration mindset; and more. One method of accomplishing this is that CSM provides multiple lessons (procedural, conceptual, contextual, multiple solutions, worked out examples, etc.) for every skill, and then monitors how students try to learn as well as their personal success in learning, and then responds appropriately.
- A student without good **learning behaviors** won't consistently employ their learning strategies – such behaviors include attention-to-detail, conscientiousness, persistence, self-reliance, resilience, and more. As an example of how CSM addresses these, when students are frustrated, they will often exhibit behaviors such as hitting the Submit key rapidly or entering junk answer, or alternatively of escaping to Facebook or other websites – CSM monitors these behaviors and guides students to more successful interactions.
- Student behaviors are related to personal high expectations, growth mindset, intrinsic motivation, and most importantly **self-efficacy**: the belief that you can succeed when you set your mind to it, developed through personal experience. Without self-efficacy, when a student hits a roadblock, their suspicions of likely failure are affirmed, resulting in poor persistence and resilience. CSM addresses these issues with many methods taken from educational psychology and behavioral economics.
- There are many feedback mechanisms within the process. For example, when students are successful at acquiring skills, their self-efficacy and intrinsic motivation improve. Additionally, if a student has good learning strategies, they feel more in control and their self-efficacy improves.

Current state-of-the-art adaptive learning systems (Pearson, ALEKS, Cognitive Tutor, Knewton, etc.) personalize only with regard to the student's path through the skills. CSM is the first adaptive learning system that personalizes all aspects of learning – skills, learning, behaviors, affect – in order to develop the virtuous cycle of personal effectiveness and high performance that results.

Importantly, the purpose of education and training isn't simply to acquire skills, but to become a **better learner** (e.g. with solid learning strategies and meta-cognition) and a **better student** (with good behaviors and positive self-identity). That is, CSM attends to all aspects of learning, building high performing people who will be successful at school, college, work and life.

Brief description of aspects of CSM's next-generation approach

CSM analyzes student answers to determine the thinking error

Even when the answer is fill-in-the-blank, CSM analyzes the student input in order to determine the student's specific thinking error, significantly speeding the learning process.

CSM makes high level interpretations about the student every 10 minutes

Every 10 minutes, CSM analyzes the last 2 hours of student work and creates a series of high-level interpretations of student strengths and concerns, which CSM conveys directly to student through the computer interface, as well as communicating to CSM coaches.

CSM gives frequent and meaningful positive feedback

In most learning systems, positive feedback to the student is surprisingly rare and rote. In contrast, CSM constantly provides meaningful positive feedback. For example, even if a student is stuck on learning a skill, CSM can compliment them on how they've tried to learn – on the lessons that they read, on their persistence, on their high degree of focus, on how they handle frustration, and more.

CSM asks meta-cognitive questions to produce people who think about their learning

CSM teaches learning meta-cognition to students – i.e., thinking about learning. At key times, CSM asks students to reflect whether they know the skill that they're working on (e.g. "Do you now know how to do this skill?" "Do you understand what you did wrong?", etc.). CSM checks to see how accurate they are in answering these questions, and provides intervention for poor meta-cognition.

CSM monitors and responds to issues in learning strategies and performance traits.

Most adaptive learning programs focus on cognition, while CSM recognizes that the key issues for most students are motivation, attitudes, behaviors and feelings. To provide personalized interventions, CSM continuously monitors student behavior – putting "junk" into the system, rapidly hitting the submit key, looking at other windows (e.g. email or Facebook), giving up quickly, etc. CSM interprets student data every 10 minutes, and intervenes directly or through the coach.

CSM deals with frustration as a prerequisite to persistence

In most classes, teachers intervene quickly when they see frustrated students. In CSM, however, persistence is a key goal, and there is no such thing as persistence without frustration, and teachers shouldn't short-circuit it. CSM monitors student frustration, but only intervenes (directly or through the coach) when frustration appears ready to "boil over".

CSM requires an extremely high level of mastery/competency

In education, "competency" usually means 60-70% on a multiple choice test. In CSM, most problems are fill-in-the-blank, and students need to get 100% right on a page before they proceed to the next skill, teaching students three things: what A-level work is; that they're personally capable of A-level work; and finally, the joy of mastery, allowing them to develop intrinsic motivation.

CSM ensures durable mastery

Most learning systems put a checkmark for the student on a skill as soon as they show initial competency. In CSM, a student earns a yellow belt (karate metaphor) the first time that they gain 100% mastery, and returns to similar problems a week later. If they show mastery, they go on to their red and later their black belt.

CSM deals with learned helplessness

Many students experience "learned helplessness" -- when they get stuck, they just put their pencil down. They assume the issue is with themselves, thinking: *I can't do this, and everyone else probably can – I'm really dumb. If I try, I still won't be able to do it and then I'll feel worse, so I won't even try.*" One of CSM's many interventions for this is that after a student learns a skill, CSM indicates it's difficulty – e.g. "Only 20% of all adults and 40% of college graduates could do that problem". Now the student thinks: "*I can't do the problem not because I'm stupid, but because it's hard. If I spend 5 minutes on it, I can usually do it, and then I'll be doing things most people can't do.*" CSM protects students from learned helplessness, and gives them space to try hard things.