

# **The Human Side of Changing Education**

**How to Lead Change With  
Clarity, Conviction, and Courage**

**Julie M. Wilson**

*Foreword by Arthur Levine*



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 for downloadable resources.

# Foreword

Throughout much of my career, when an organization or person in my field was mentioned, the name was usually familiar. Several years ago, I realized this was no longer true. I was hearing more and more new names and they seemed to change daily.

I should not have been surprised. The United States is experiencing profound, continuing, and accelerating demographic, economic, technological, political, and global change as it transitions from a national, analog, industrial economy to a global, digital, information economy. America's education system is experiencing comparable changes.

I wanted to learn more about the emerging education landscape, beyond the flavor du jour. I wanted to see the most promising initiatives and meet the people who were leading them. I wanted to talk with the people who were doing the best thinking about what was coming.

I began going to conferences I hadn't previously attended such as ASU-GSV and SxSW. That wasn't enough. Too much was being written about the future of education; too many new initiatives were underway and too many new leaders were emerging. The churn in players, places, and perspectives was extraordinary. To use a cliché, it was like trying to drink from a fire hose.

I needed a tutor. Seemingly everyone I talked with told me I had to meet Julie Wilson, who had created an independent think and do tank on the future of education and successful change. After a long breakfast, I understood why. Julie's understanding and experience in the current and emerging landscape was wide and deep. She introduced me to key thinkers and doers. She arranged for me to see promising initiatives. She turned each of these conversations and visits into case studies and knitted them together to illuminate the emerging landscape of education and the requirements for success in this environment.

Julie was my teacher and the teacher of many others. We urged her to write a book to share her rich and unique body of knowledge, experience, and wisdom with educators hungry and in desperate need of what Julie gave us. This is that book. I am honored to have been asked to write the foreword.

Julie Wilson's book comes at a time in which America's schools are undergoing a transformation. A nation's education system typically mirrors its times, lagging a bit behind. America's schools were created for an industrial economy. They were modeled on one of the most effective technologies of the nineteenth century, the assembly line, and were very successful for well over a century. Like the assembly line, they are rooted in a fixed process and a fixed schedule over a fixed period of time. On average, students, sorted

by age in classes of twenty-five to thirty students, attend school 180 days a year for twelve years. They take four to five major courses a year in secondary school for lengths of time established by the Carnegie Foundation in 1906. The focus of these traditional schools is on teaching, and student progress is based upon seat time—the amount of time spent with a teacher in a classroom.

As America transitions to a global, digital, information economy, there will be commensurate changes to our schools. They can be expected to shift away from the fixed processes and clock of the industrial era toward the fixed outcomes favored by information economies. Accordingly, they will be focused on what students learn rather than what they have been taught. This change is already under way, and its implications for schooling are profound. With a focus on learning, education will become student centered rather than teacher centered. It will be rooted in learning outcomes—the skills and knowledge students are required to master to earn a credential (generally referred to today as competencies, standards, and outcomes). The process for achieving mastery and the amount of time necessary to do so will vary from student to student and from competency to competency for each student. In this system, the time and process of learning will become variable and the outcomes will be fixed.

This shift will render the current time-based academic accounting system—consisting of credit hours, Carnegie units, and seat time—anachronistic. It will be necessary for the education system to develop shared or common definitions of outcomes or competencies.

Psychiatry is an example of a field that accomplished this. With its *Diagnostic and Statistical Manual of Mental Disorders*, psychiatry standardized the language, definitions, and criteria for classifying mental illnesses. Credentialing is likely to evolve in a comparable fashion. Today's degrees are macro-credentials tied to the number of credits or courses students must complete to earn a diploma. A shift to outcomes makes it possible to certify smaller units of knowledge and skills, specific competency areas that students achieve, and to award micro-credentials for mastering them.

Instruction, rooted in outcomes and aided by digital technologies, will become more individualized or personalized. That is, the Internet offers a limitless array of learning materials for students and the possibility of a multiplicity of pedagogical approaches to learning, including self-study; peer-based learning; expert instruction; tutoring; collaborative learning; flipped instruction; simulations and games; online learning; face-to-face-instruction; blended, synchronous, and asynchronous instruction; group and individual instruction; and much, much more.

As the focus of education moves to individualized student learning, the course of study for preparing teachers will rely more and more on learning sciences, knowledge of how an increasingly diverse student population learns. Historically, education has been rooted in philosophy. In the future,

biology will gain dominance as our understanding of the brain and how it works advances.

At the same time, the classroom can be expected to expand dramatically—from a walled physical space that typically operates from 8:00 a.m. to 3:00 p.m. weekdays to an unbounded space that embraces both formal and informal learning, which occurs anytime, anyplace, twenty-four hours a day, seven days a week.

Assessment will change as well. Formative assessment will become the dominant mode of evaluation. The education system will continually assess what each learner knows and can do, based upon the outcomes that learner must attain, and then determine the future course of studies the learner should pursue, based upon those assessments. Assessment will be formative until the final assessment, which proves to be summative in finding the learner has achieved the competency and is ready to move onto the next.

In contrast to today's testing regimens, which rely heavily upon examining students at the completion of a class or unit, assessment will be much more like a GPS, determining where students are in their learning and what they need to do to reach the final destination—mastery of a competency. Over time, assessment is likely to be increasingly embedded in instruction.

In such a system, each student would have an individual education plan. Today, these plans are reserved for the growing number of students diagnosed with learning disabilities. *Learning disabled* and *special education* are catch-all terms, applied to students who learn in a manner different from the norm. With advances in learning science, it will be possible to recognize a spectrum of ways in which students learn and offer the most effective methods of instruction associated with those differences.

The jobs of educators will change accordingly. In the emerging schools, teachers will become engineers or designers of student learning, engaging in four primary roles—assessor, diagnostician, prescriber, and instructor.

Industrial-era and information-age schools represent the poles of a continuum. They are abstractions, pure types that don't exist in the real world. The information-age school is yet to be invented, and the industrial-era school has continued to evolve over time.

America's actual schools range across the continuum, overwhelmingly skewed toward the industrial pole. There are exceptions—schools that have embraced some aspects of the information economy education, such as competency-based education, individualized instruction, simulations and games, hybrid learning, or new forms of assessment.

In the transition, most schools have been placed in an untenable position. The states have required them to maintain both the historic fixed processes and scheduling of the industrial era and to augment them with the fixed outcomes or standards of the information economy. This isn't



possible educationally; all three cannot be simultaneously fixed. People learn at different rates, so if fixed outcomes are to be obtained, time must be variable. If time is fixed, then the outcomes will necessarily be variable. The best solution would be accelerating education's transition to the information economy and removing the shackles of industrial-era design that slow it down.

Julie Wilson's book is a gift in this environment. It is essential reading for all educators today, a time that demands they lead change in educational institutions rather than merely managing them. It is a volume that must be read by those who hire educators, who educate educators, who report on education, who fund education, and who make policy or administer policy in education.

Most education reform or change initiatives fail, not because of the quality of the ideas that underlie them, but because of the people who plan, implement, and institutionalize them. In this volume, Julie Wilson offers us a primer on the human dimension of educational change from conception to realization. It is at once practical, motivational, and visionary. I have been waiting for such a book for years and I can't thank Julie Wilson enough for writing it.

—**Arthur Levine**

President, Woodrow Wilson Foundation, Princeton, NJ

*Generation on a Tightrope: A Portrait of Today's College Student* (with Diane Dean, 2012)

“ We are preparing  
our students for  
success in their  
century, not mine. ”

—PAM MORAN, SUPERINTENDENT,  
ALBEMARLE DISTRICT, VIRGINIA

# Chapter 1

## WHAT'S WORTH LEARNING? YOUR NORTH STAR

“What’s Worth Learning?”

David Perkins kicked off his 2006 course, “Education for the Unknown” with this question.

The question has followed me around ever since.

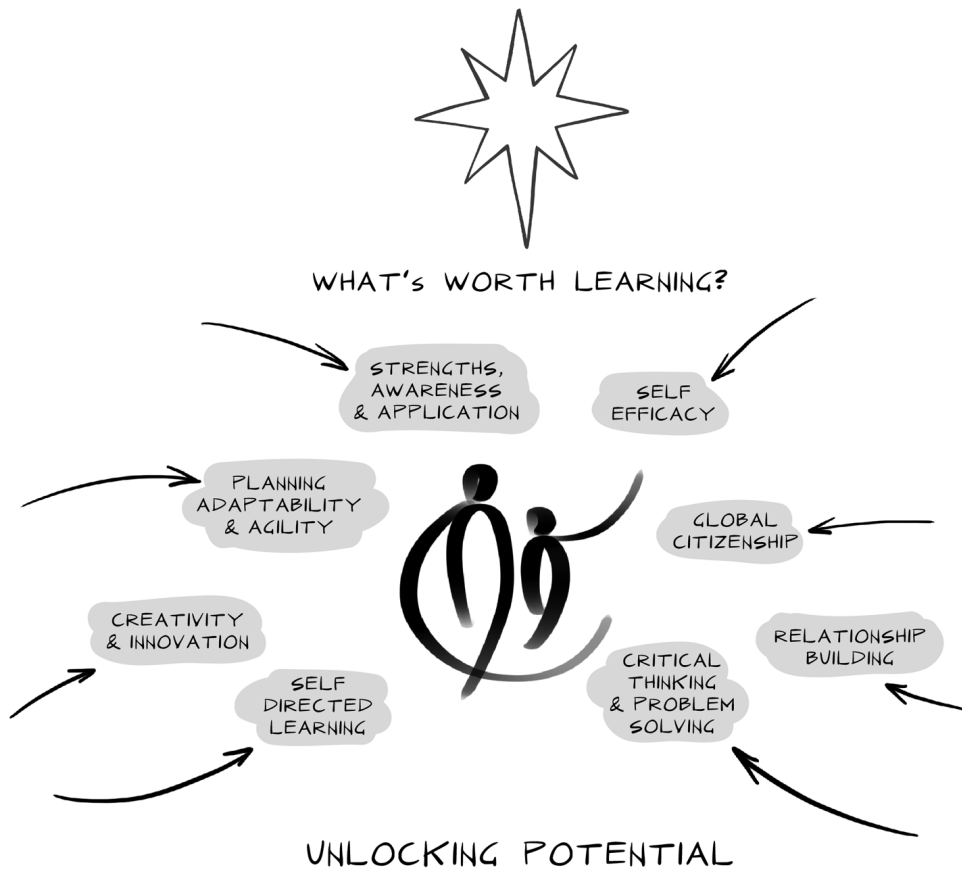
My answer to the question has been distilled over the years, working with adults as a leadership trainer and coach; helping them learn the skills to build, lead, and be part of teams; navigate change; and the core of it all, to build and lead a life of their own choosing. After almost two decades of working with adults as they build the skills necessary to thrive at work and in life, I notice the same themes coming up time and time again. These used to be called “soft skills,” a misnomer, as they are among the most challenging to learn and master as adults. I call them *worthy skills*: the skills that are neither easy nor soft, AND are worth learning.

Figure 1.1 describes the skills and habits of mind that we need in order to thrive as adults in our volatile, uncertain, complex and ambiguous (VUCA) world. For many of us, entering adulthood involves unlearning what we learned through a standardized system of education and learning a host of new skills essentially from scratch, skills that we could have been building much earlier as children. The World Economic Forum “Future of Jobs Report” (2016) cites the top three skills needed to thrive in 2020 as complex problem solving, critical thinking, and creativity. These same skills were identified over a decade ago by the Partnership for 21st Century Learning in Washington, D.C.—skills that are required for success at work—and I would argue, in life as well.

### A Rising Tide of Consensus

While there is much debate on what ails our education system, we are witnessing a rising tide of consensus regarding our collective answer to the “What’s Worth Learning?” question. There is widespread agreement that the basic literacy requirements of the industrial model of education are the floor, not the ceiling, and that we need to set our sights higher for our children. Tony Wagner’s book, *The Global Achievement Gap* (2014),

Figure 1.1 • What's Worth Learning?



Source: Illustration by Kely Bird.

describes the seven survival skills and Sir Ken Robinson's book, *Creative Schools* (2016) describes eight core competencies. The Deeper Learning Network at the Hewlett Foundation focuses on six competencies (2013) and the Partnership for 21st Century Skills describes a framework for 21st century learning (2017) (see Figure 1.2).

As you can see from Figure 1.2, there is significant overlap and consensus. There is much more that binds us than separates us when it comes to our individual and collective answer to the question of "What's Worth Learning?"

Amid this growing consensus, it is vital for schools and communities to come together and to ask themselves, "What's Worth Learning?" Our answer to this question should be the North Star that directs the work of a school or district as it embarks on its journey of change. Figure 1.2 is helpful as a jumping off point, but it is important for communities to ask themselves this question from first principles in order to orient the process of redesigning the system accordingly.

There is an additional level to the question of "What's Worth Learning?" that speaks to the process of redesigning the system and of the change

Figure 1.2 • Growing Consensus

Tony Wagner's The Global Achievement Gap	Sir Ken Robinson's Creative Schools	Hewlett Foundation's Deeper Learning Network	Partnership for 21st Century Skills	Institute for the Future of Learning Worthy Skills
Critical thinking and problem solving	Curiosity	Mastery of core academic content	Learning and Innovation Skills (the 4Cs):	Self-Directed Learning
Collaboration across networks and leading by influence	Creativity	Critical thinking and complex problem solving	Communication	Creativity and Innovation
Agility and adaptability	Criticism	Collaboration	Collaboration	Planning, Adaptability, and Agility
Initiative and entrepreneurship	Communication	Effective Communication	Creativity	Strengths Awareness and Application
Effective oral and written communication	Compassion	Learning how to learn	Critical thinking	Self-Efficacy
Accessing and analyzing information	Composure	An "academic mindset"	Life and Career Skills	Global Citizenship
Curiosity and imagination	Citizenship		Information, Media and Technology Skills	Relationship Building
			Key Subjects—3Rs and 21st century themes	Critical Thinking and Problem Solving

Source: Adapted from Wagner (2014), Robinson & Aronica (2016), and Hewlett Foundation (2013).

process itself, and it is one that I see rarely discussed or made explicit. **Children cannot learn these skills and habits of mind, if the adults are not given the opportunity to learn them as well—and it is these very same skills and habits of mind that are necessary to lead and implement change.** Change that is human centered. Change that recognizes we are not widgets on a manufacturing line, but rather complex human beings with natural cycles of development that can be structured, nurtured and supported—not as an afterthought to a change management plan, but as the very means by which the change will be realized.

Adults and institutions need to unlearn old habits and learn postindustrial era skills in parallel fashion with the students. The skills in Figure 1.1, while not an exhaustive list, are skills that adults need to be able to lead and implement a more human-centered change process in our schools. These are the skills that not only help us thrive in the workplace, but thrive as human beings as well. If we agree with Einstein that “We cannot solve our problems with the same thinking that created them,” we need to equip our children with the skills, knowledge and habits of mind that will enable them to address the problems that *we* created—and *we*, the adults, are playing catch up in learning those same skills.

“In times of change learners inherit the earth; while the learned find themselves beautifully equipped to deal with a world that no longer exists.”

—Eric Hoffer

To help bring the skills in Figure 1.1 to life, I describe each of them below through both of these lenses, that is, student and adult: Emmy Ryder, graduate of Kent Innovation High in Grand Rapids, Michigan, describes her experience learning these skills in high school, while Lisa Abel Palmieri, Head of School and Chief Learning Officer at Holy Family Academy in Pittsburgh, Pennsylvania, describes the skills from the perspective of a school leader supporting adults and leading change.

As we explore the skills, you will notice how interrelated and interdependent the skills are, for example, questions are the genesis of creativity, the more those questions come from the learner, and the more they are directly linked to helping the learner build awareness of her strengths, the more powerful the learning experience. When solving a problem in a team, it is important to build relationships, manage conflict, and remain adaptable in the face of changing information and circumstances. So while these skills are described separately, they become even more powerful as a unified whole.

As you reflect on these skills, think about your own school or district. What is worth learning for your children? How might your answer be similar or different? How do those skills, knowledge, and habits of mind, correlate to the skills, knowledge and habits of mind that the adults will be invited to learn as part of your change process?

## Worthy Skill 1: Self-Directed Learning

What are your questions?

The power of any learning endeavor is to nurture and grow the learner’s innate desire and ability to learn. We are all born curious. Each of us peppered our parents in our early years with relentless questions. Tom Barrett describes his son George’s question in hilarious and awe-inspiring fashion in his book, *Can Computers Keep Secrets?: How a Six Year Old’s Curiosity Could Change the World* (2013):

- Why do brains work at night?
- “What is the crumbliest thing in the world?”
- “If you had superpowers, how would you control them?”
- “Do pigs think in human, but talk in pig?”
- “What would defeat electricity?”

We live our life in the direction of our questions. Ideally our questions engage, inspire and stretch us. We have the opportunity to follow our questions as adults—and those inspirational teachers, teachers such as Tom Barrett, invite their students to do so on a daily basis.

Questions are the starting point of creativity, and questions are at the heart of effective learning. In kindergarten we followed the trail of our questions,

but as we progressed through the system, our questions became second-rate citizens to the questions in the text book. Students and teachers who have the temerity to follow their own questions in spite of this conditioning, too often find themselves in defiance of the system that should be supporting that seed of learning.

Emmy Ryder's story is an example of what happens when a student is invited to ask her own questions and is given ownership of her learning in a meaningful way. I first met Emmy during her junior year in high school through her writing on the New Tech Network blog where she described in clear terms "*playing the game of school*" and its deleterious impact on her intrinsic motivation to learn. In an excerpt from her blog (2013), Emmy wisely notes how, at age 14, she didn't care about learning; she cared about the grade. You can see in Emmy's writing how that shifted for her as she was given more and more ownership of her learning:

When I was in 8th grade, grades and being on top were a big deal to me. I was that kid who constantly checked the online gradebook. I always finished homework and stressed over tests. . . . Even if I understood the content, I did the worksheet anyway.

Why? For the grade.

I never really questioned the content. I just scrambled to write down all the notes. I never cared if I was going to use it in 10 years. . . . I cared about the grade.

I wanted high grades. I wanted As. I was pretty close minded. Not because I chose this path, but because this is how I had been trained since kindergarten. Grades are everything . . . I was a narrow-minded student, with one goal, grades (not learning: grades). Basically, the steps I took were sit down, shut up, and listen, then go home and study.

[Since joining Kent Innovation High] Now I question nearly everything. Why IS the sky blue? The great thing is I don't receive science facts. I get my question answered with a question. Which leaves me room to explore myself, interpret the information myself and learn the information in a way which suits me. Projects usually focus on SWLO [schoolwide learning outcomes] more than content. This means I can take the content I do need to include and incorporate it as I feel necessary. I feel that when we create projects, I focus more on what I am taking out of the project, what others will take away, and what work I put into it. I want to create a product that I am satisfied with. Not just something that will get me a good grade.

I want to change the world with the projects I produce. Whether it's the whole world, my community or even just one person's life. I want to make that difference.

*Source:* Ryder (2013).

When Emmy joined Kent Innovation High, she found herself in a rich learning environment where students were not spoon-fed questions to ensure a predetermined outcome, but rather encouraged to dig into their own questions, find their own answers, and wrestle with messy problems. It is this process that enables those students to become active participants in their own learning, and, ultimately, to become self-directed learners.

For adults, how much of the learning and professional development is directed by the teachers' and administrators' learning goals? How might you begin to unleash the talent in your school? Lisa Abel Palmieri (*Getting Smart: 5 Qualities of Prepared Leaders in a Project based World*, 2017) describes her approach to directing her own learning. It includes everything from leveraging social media, working with mentors and trusted advisors, attending workshops and conferences—and the core of it all—the importance of knowing herself:

Leadership is developed daily, not in a few days. Successful school leaders are learners first and foremost; they have the capacity to develop and improve their own skills, and practice demonstrating perseverance and the mindset necessary for a project-based world. As a learner, I regularly attend professional development events like the Deeper Learning Summit, SXSWedu, and many local events through Pittsburgh's amazing Remake Learning Network.

Additionally, social media is a place where I connect with others to learn new practices, receive support, or share ideas—and it's open 24/7/365. As one of the founders of #DTK12CHAT, a weekly chat on design thinking in education, I have built a global PLN (personal learning network) that is available for support and to challenge my thinking.

*Source:* "5 Qualities of Prepared Leaders in a Project-Based World," <http://www.gettingsmart.com/2017/03/5-qualities-prepared-leaders-project-based-world>, by Lisa Abel Palmieri was originally published on Getting Smart ([gettingsmart.com](http://www.gettingsmart.com))

Lisa's reflections are a great example of how we have the opportunity to design our own personalized learning plan and the many low- or no-cost development opportunities that are available to us. When I spoke with Lisa directly regarding her experience of self-directed learning, she highlighted the importance of knowing oneself,

Being aware of your personality and strengths and your opportunities for partnership is important— stay humble, ask for others opinions and support. A huge piece of self-directed learning is to know yourself—and knowing when to ask others for help.

As a leader of change, as a teacher, as an adult working in education, what are your personal development goals? What does the next level of mastery in your field of practice look like? How are you tracking your progress and what kind of support are you surrounding yourself with?



When you reflect on the change that you are seeking in your school, how much autonomy are you building into the system for adults and children alike to direct their own learning and to follow the wisdom and wonder of their own questions? Are the adults and students following a predetermined path or do they have the opportunity to exercise choice and autonomy? Self-directed learning lies at the heart of shifting from a culture of compliance and consumption to a culture of independent thought and creativity.

## Worthy Skill 2: Creativity and Innovation

What are your dreams? What will you create?

In kindergarten, we created on a daily basis. As we moved through middle school and high school, too often “creativity” became something we did only in art class and something that was optional. Many of the post-No Child Left Behind (NCLB) reform efforts served to strip the arts and creativity across multiple content areas, from many schools’ curricula—all in pursuit of improving test scores. While many of these reforms were designed by people with good intentions, they served to take us further away from a core skill that we need to thrive as children and adults alike. If we lose our ability to dream, and if we lose the practice of courage in creating something and putting it out there, we lose our ability to follow our gut and take risks. This is one of the most challenging aspects of creativity as an adult: Embracing creativity is embracing failure, and as adults, we become programmed to avoid failure at all costs. We are products of a system where it is not OK to have the wrong answer, where there is little time or tolerance for trial and error, and where teachers are rarely invited to be creative in their classrooms.

Providing adults with the opportunity and support to fail and to learn in a safe environment is one of the biggest challenges of school change. I remember a teacher in a summer institute where we were discussing the change her school was leading in the next academic year. She described in detail how she wanted to partner with another teacher and create a new curriculum that would take their students out of the classroom to work on an interdisciplinary service project in the local community. She was both excited and afraid. She said that she really wanted to do the project but was unsure if the timing was right and if she could really swing it. I knew there was something else going on, something else below the surface of “enough time.” I asked her “What else?” a few times—and then we landed on the core challenge. With a shaky voice, she said, “It might go belly up. It might fail. It might be a disaster.” The comment sparked the most helpful conversation of the day; her fellow teachers empathized and began discussing how the price of creativity is the openness to fail and how they might support each other through this change. Teaching is a high stakes activity, one where failures are too often seen as disasters. We need to support teachers

**“The principal goal of education in the schools should be creating men and women who are capable of doing new things, not simply repeating what other generations have done; men and women who are creative, inventive, and discoverers.”**

—Jean Piaget

in experimentation, reflection, and iteration of their practice. We need to support their learning.

Openly talking about the risks and opportunities of failure serves not only the adults, but is a springboard for teachers to have the same conversations with their students. Students are much more likely to create in a low stakes, safe environment where the only real failure is either not trying in the first place, or not learning from the failed attempt.

Emmy describes how creativity came from the freedom she was given to choose projects and she shares the example of a project from her eleventh-grade economics class:

A lot of creativity came from the freedom we were given and the ability to choose what to work on. I remember a project I loved in 11th grade for economics class. We were focusing on both preserving the environment and designing a product to market. I decided to design a self-watering flower bottle. I designed and created a prototype of the product and presented it to a panel of local business people and artists. While the objectives of the project were aligned with the school-wide learning outcomes, we had complete freedom of choice with regard to what we choose to design, build, and present. With twenty different students, we had twenty different products.

Lisa is an expert in design thinking and has led many workshops over the years, teaching adults how to use this methodology to tap into their creativity. She believes that in order to be truly creative, to help each other and to help the students, the process has to be human centered. Can you put yourself into the shoes of the person for whom you are designing? To what extent do you understand the world of the students whose learning environment you want to improve? Lisa taps into one of the not-often discussed challenges of the system:

It has to be about what others need, not what you think they need.

Lisa goes on to describe how we might model creativity as the adults and carve out more space for teachers to have the opportunity to create:

[At our school] creativity and innovation are part of our values, creativity is built into how we do the everyday work—that means teachers are collaborating extensively across subject areas, and they have forty plus days of professional development per year. We try out different things, we use improv activities to warm up; everything we do in classrooms, we model in teacher professional development. It needs to be as innovative and creative for the adults as it is for the students.

How are students and adults alike in your school or district being encouraged to be creative and innovative? Is it incentivized and encouraged?

Along the continuum of “It never happens” to “It’s baked into our values and how we work and learn,” where would you place your school or district?

## Worthy Skill 3: Planning, Adaptability, and Agility

How can you become an adaptable, agile planner?

A core skill as an adult is to be able to plan and adapt. Knowing when and how to adapt is as much an art as it is a science. One of my favorite courses to teach was “Project Management 101.” It was great fun helping class participants scope their projects, establish milestones, and plan their work. Invariably, one of the participants would mention the fact that plans often do not, that is never, go as planned. The class would shift into a generative discussion on the importance of planning—and the importance of adapting or throwing out the plan entirely when circumstances morph and change.

I would love to see courses such as Project Management 101 become obsolete for adults as a direct result of kids learning these skills at school via meaningful, real-world projects. I saw a glimpse into that future when I visited Columbus Signature Academy in Columbus, Indiana. The fourteen-year-old students described how they worked on scoping, planning, and implementing team-based projects. One of the students explained how students coach and give each other feedback on overall progress and how they adapt when things do not go according to plan. The process and protocols that they had designed and were using would rival those of any high-performing adult team.

We bump up against the need to plan and adapt when implementing change as adults. We need a plan for the change, but in equal measure, we need to hold the plan lightly. This is why getting clear on vision and purpose is so important—there are many paths that can take us there, but if we are not clear on where we are headed, chaos can and will ensue.

Emmy describes her experience of being too ambitious in one of her first projects at Kent Innovation High and how she learned how to plan, be flexible, and adapt as needed:

During one of my first video projects, I had a very specific story line that I wanted us to follow. I kept thinking that I could cram it in, but I ran out of time and the end result wasn’t great, I knew it wasn’t my best work. The next time I had learned my lesson. During the planning process I realized I needed to cut the story down and get clear on what the end product would look like. I remember thinking, “Instead of cramming all of this content in, let’s prioritize.” It taught me that it’s OK to change the plan and that I need to be flexible.

“Plans are of little use, but planning is essential.”

—Winston Churchill

Lisa shares an interesting take on this skill for adults. She talks about being a “Navigator” as a leader of change:

Being a navigator means I know the policies and what could be roadblock. How do I make a crazy idea happen? What can prevent it? I make sure I have a response for it. I want to be sure I have an answer for things that can be roadblocks, before they are asked. It’s important to anticipate the barriers.

Being adaptable is a key part of leading any successful change effort. You are almost 100 percent guaranteed that your plan will not work out as planned. BUT you need a plan. Hold it lightly and stay on course, or in Lisa’s words, “Keep the quest and find ways around roadblocks.”

How might you redesign learning in your school or district in such a way that students are given the opportunity to plan, learn, and adapt? How are you building that skill set for yourself as you lead a change and how might your colleagues be partners in planning, adapting, and re-orienting during the change process?

## Worthy Skill 4: Strengths Awareness and Application

**“Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will spend its whole life believing that it is stupid.”**

**—Anonymous, although often credited to Albert Einstein**

There are some things you can do better than most. Do you know what they are?

Building on your personal strengths has been proven to lead to success, but I see too many adults asking themselves this question, in many cases for the first time, in their mid to late adulthood.

Our educational system, for the most part, values strengths in logic, language, and recall, and it diminishes, or ignores, strengths that do not fall within those narrow domains. How might we begin to understand these individual talents better—for children and adults alike?

Before she went to Kent Innovation High, Emmy thought her strengths were in memorizing information and doing what was on the paper. In Emmy’s words, “I learned to play the game of school.” As she progressed in her studies at Kent Innovation High, she learned that her strengths were public speaking, organizing and giving tours, and helping others. Strengths that had lain dormant during her previous high school experience.

With time and a different kind of learning environment, my strengths flourished. How was the environment different? For the first time, I was surrounded by people who supported and pushed me to do my best, I was working with real organizations and I could see where they needed help. It felt good to be able to help other people in those organizations. A good example was the book project we did when we

worked with a local children’s hospital. We designed, wrote, and produced books for kids and we related them back to the nuclear topics we were studying in physics. I discovered when I am doing my best to help other people, that’s when my strengths really kick in.

As a school leader, Lisa describes how she works from a strengths perspective, not a deficits perspective, when managing and leading the adults in her school:

Every new hire that comes into our school takes the Gallup StrengthsFinder survey as part of our onboarding process. It is the foundation for our mentorship program for new staff. Every class in the school is co-taught; we partner master teachers with teachers who have one to two years’ experience. We discuss their respective strengths—how they align, how they are different, how you can grow them, and how to build on each other’s strengths.

I also use strengths to talk about team development and to help me receive the feedback I need. I have the “Activator” strength and have a strong drive to start new things; sometimes I overuse that strength and need to tone it down. I rely on my team to give me that feedback when I need it and it helps us to create a positive culture of development for everyone.

In our postindustrial world, understanding our talents and strengths has shifted from a “nice to have” to a “must have.” How might we establish learning environments that enable students and adults to dive into their strengths and their talents in a deep and meaningful way?

## Worthy Skill 5: Self-Efficacy

Do you believe you can?

In many ways, the current education system perpetuates learned helplessness. The underlying message of “college for all,” while well intentioned, tells students that you need a college degree to be successful. You have two choices: Go to college and have a chance of success, or don’t go to college and be relegated to a life of minimum wage. I remember talking with a group of students in Maine where one of the students asked if she *had* to go to college. I asked her to expand on the question and she said, “When do I get to do what I want to do? Do I have to go to college and then do what I want to do afterward, or can I start doing what I want to do now?”

It struck me that I have the same conversation with adults all the time in their work. Conversations where adults tell me that first they need a master’s degree before they can start doing the work they want to do; for example, my friend Melissa, a school teacher, thought she needed an MBA before she started her business. In addition to teaching for almost a decade, Melissa had worked for the same amount of time in her family’s small

**“If I have the belief that I can do it, I shall surely acquire the capacity to do it even if I may not have it at the beginning.”**

—Mahatma Gandhi

business. She had a host of skills already that would serve her in building her business. No MBA required. “Learned helplessness” and “waiting for permission” get in the way of our dreams and the education system, in many ways, perpetuates both.

I am not saying that undergraduate and postgraduate degrees are unnecessary; there are many fields that require these credentials. What I am saying is that the unintended consequence of “college for all” negates a noncollege choice and in many cases perpetuates “learned helplessness.”

Shawn Humphrey calls himself the Blue Collar Professor; he is on a mission to help young people tap into their agency and self-efficacy. This is not just something that we add on as a forty-five minute block on a Tuesday. It is the blood that runs through the veins of an enlightened approach to learning. Shawn calls it “Tribal Teaching”:

We are on a journey to activate your agency. It will be perilous. Struggle will be ever present. Your demons will be your constant companion. They will sabotage your efforts. They will create setbacks. They will induce long durations of self-doubt. They will make the prospect of failure grow and grow. But, you will carry on. You will fight. You will battle. You will scratch and claw and punch. You will slay. And in that moment of victory, you will have reclaimed your humanity. You will have tasted freedom. It will taste good. You will want more.

Imagine if our entire education system prepared its young adults for that level of agency.

Emmy recalls a transition during her earlier years at Kent Innovation High when she learned an important lesson regarding agency and her intrinsic motivation as a learner:

I was in 10th grade and we were working on a water project. I wasn't 100% sure of my role and I wasn't very motivated. I started to take a back seat, stopped asking questions, and continued to struggle. It did not get better as time went on. I fell more and more behind. I learned that lesson and stepped up in 11th and 12th grade. I realized that I needed to find my intrinsic motivation in the work—it was a combination of realizing what needed to be done and wanting to do it. As I developed that skill, it led to greater self-awareness and helped me push myself to complete tasks that were needed.”

When supporting and nurturing the agency of adults, Lisa has some wise and very doable advice:

[T]o support your teachers, to help them believe in themselves and their talents, you need to get to know them. Talk to them. Make the effort to speak with everyone, particularly the quiet ones. Know your staff. In a large school district that can be hard, but building-level

principals can. You need to go into a teacher’s classroom for more than one or two observations per year. Eat lunch with people, go to the out-of-school activities, and hit the Happy Hour. Oftentimes out of school, people feel more free to say what they mean. Help a teacher who might lack confidence. Know your teachers, know their talents and tailor opportunities to help them grow.

As a leader, you have the opportunity to establish an environment that either increases or decreases the sense of self-efficacy in your students and in your staff. How much agency and choice do your students have in a typical day of school? Are they given autonomy and support to work on projects that align not only with the standards, but with their interests as well? What about the adults? Do they have active voice and responsibility in the running of the school? How might you redesign your school’s systems and processes to provide adults and students with more agency and choice?

## Worthy Skill 6: Global Citizenship

Are you ready for a global and interdependent world?

We are more connected than ever via technology. In equal measure, we experience extreme division and separateness. I grew up during the Troubles of Northern Ireland against the backdrop of people declaring hate for each other in the name of religion. I believe every single person on this planet has more in common with each other than we realize.

If I had a magic wand, I would ask that every young person, take an ancestry DNA test and learn the complexity of their ancestral composition. Tolerance, empathy, and connection with others “different” than ourselves is not a “nice to have”—it’s a nonnegotiable that our young people don’t repeat the same mistakes that we have made in the name of religion and of perceived sovereignty.

The United Nations Education, Scientific and Cultural Organization (UNESCO; 2015) notes “Global citizenship refers to a sense of belonging to a broader community and common humanity. It emphasises political, economic, social and cultural interdependency and interconnectedness between the local, the national and the global.”

This can happen today in all our schools, if we choose, and organizations such as UNESCO, in partnership with the Asia Society ([asiasociety.org/education](http://asiasociety.org/education)), provide a depth of resources to help make it a reality.

During her time at Kent Innovation High in Michigan, Emmy got to know students who were leading exciting projects all over the world via the regular Twitter chats she hosted:

Living in the 21st century with its technological advances lends itself to different connections and pushes your learning. You don’t have to

**“If I knew something that would serve my country but would harm mankind, I would never reveal it; for I am a citizen of humanity first and by necessity, and a citizen of France second, and only by accident.”**

**—Charles de Montesquieu**



work with the same people all the time; you can branch out and find people you need. Through Twitter I have sent ideas back and forward internationally. I feel great that I have those connections, and that I can reach out and build more global relationships throughout career and life.

Lisa has the vantage point of having worked in diverse learning environments including an all girls' boarding school, the U.S. Navy, One Schoolhouse, and her current school, Holy Family Academy. Lisa turns the notion of global citizenship being "out there" beyond the school walls on its head. Inside many schools reside a rich tapestry of races, religions, and backgrounds. This is a tremendous opportunity for learning, and yet, too often, these children are asked to leave their culture at the door of the school.

Especially important for educational leaders that do not look like their students is to unpack their privilege and uncover societal, institutional, and personal bias that they bring into their schools/districts. According to Professor Christopher Emdin, urban youth especially are often expected to leave their day-to-day life and experiences behind and assimilate into the culture of schools. This process is a form of self-repression that is traumatic and directly impacts what happens in our classrooms.

Leaders with a focus on equity create safe and trusting environments and provide resources that are respectful of a student's culture, not working to change it. This might be more important than ever right now to prepare all students in our global society for a project-based world. If we don't, the socioeconomic and racial gaps of the creative class will grow even wider. Educational leaders must create a culture where ways of seeing and engaging, challenge the status quo by naming uncomfortable realities and unequal conditions.

Lisa helped me understand that "global citizenship" does not just mean building relationships with our fellow citizens in other countries; it can be something as simple and complex as embracing the global citizenry already existing in our schools. This includes hiring teachers and administrators that reflect the student body and honoring and nurturing the multivariate traditions, cultures, and languages represented.

Lisa admits that it is challenging work. She has had success in hiring administrators to reflect her student body but has more challenges hiring teachers from her local area. Undaunted, she is now reaching out to colleges and universities outside her city—offering new recruits two years free housing on campus and the opportunity to be mentored by her master teachers. It will take time, but the ultimate goal is that the adults in the building reflect the diversity of the students in the building.

What are your opportunities to expand what is possible from a Global Citizenship perspective in your school or district?



## Worthy Skill 7: Relationship Building

Can you have a skillful difficult conversation?

This is one of the most challenging things to do as an adult. Can you assert your own needs in a relationship (be it work or personal) and listen, truly listen, while the other person asserts theirs? Difficult conversations, managing conflict, toxic teams—these are amongst the thorniest problems at work and they follow us home as well.

The social dynamics in any school provide the opportunity to learn these skills from an early age and we have choices with regard to how we do this. Not as a stand-alone class, but as a value and artifact of the school's culture. I recall a principal with whom I was working who told me that bullying in the first month of the academic year at his middle school had become standard operating procedure with a line at his door of students waiting to be reprimanded. We were working that summer with newly formed teacher teams on setting a vision for the school and planning what the first week of school might look like. The teachers decided to spend the first week establishing a welcoming, inclusive learning environment that focused on student engagement and students exploring their hopes and dreams for the year ahead. The students described their expectations of themselves, their fellow classmates, and the teacher. They brainstormed goals for the year and talked about “our classroom” and how every person had a part to play in it being a fun and challenging learning environment. A month into the new school year, the principal noted there were zero incidents of bullying during that first month. While correlation does not necessarily equal causation, I do believe the students' work in establishing those safe learning environments lessened the bullying.

The adults in that same school faced similar challenges building relationships. For the first time that year, they were collaborating as a team, planning lessons together, visiting each other's classrooms, and giving each other feedback. It was tough. The adults struggled as they went through the forming, storming, and norming stages of team development (Tuckman, 1965). They struggled adhering to the meeting norms they had established and agreed upon. They struggled to have direct difficult conversations with themselves and with each other. In many ways, adults can have just as much difficulty building effective working relationships, as the students do.

From the student perspective, Emmy notes how project-based learning helped her learn how to create deep relationships—be they professional or personal—and how to manage conflict:

[Project-based learning] forces you to work with others and put yourself out there and to be vulnerable. I built relationships inside my school and outside my school through my projects. I would often contact a number of folks at Michigan Education Tech. They would give

**“Truth is everybody is going to hurt you: you just gotta find the ones worth suffering for.”**

—Bob Marley

me feedback on my papers, ask me questions, and provide advice. Sometimes my peer review in class might have been short and I would email them ask them to look over my work with me.

Working on projects also helps you to manage conflict—every team has its struggles and I learned how to get through them. There was a time when one member on our team wasn't fulfilling their responsibilities. It was a hard conversation to have. It was my friend and I didn't want to cross the line and damage the relationship. It's like at work; you need to have the hard conversation and try to separate the two. The conversation went OK, it could have gone better, it was taken a bit like an attack, but after the initial conversation, we talked it through. The follow up conversation really helped.

Emmy was building skills in her teenage years that, truthfully, took me into my mid-twenties and beyond to learn. Managing conflict is part of life. It is important that we build these skills much earlier and schools such as Kent Innovation High provide the environment for students to learn these skills as a natural part of a well-designed project-based curriculum.

From the adult perspective, Lisa shares the importance of building relationships in achieving school mission and building a culture of deep learning:

Diversity of people, ideas, and action makes innovation happen in schools and the workplace. At Holy Family Academy, all of the classes are interdisciplinary and co-taught by teams of teachers. With particular focus on the personality and experience of our faculty, teaching teams are purposely diverse.

She goes on to highlight the importance of building relationships with families and the broader community, to support students, and shares the example of "Jason":

Jason was as bright as can be—he was a really engaged student and was excelling. He was in an amazing engineering program and really thriving. Then he failed three classes. How was he failing when we knew he was so cognitively bright? After many conversations, we learned that he had extreme anxiety because his mother is undocumented and he was worried that she would be deported. He was paying the family bills by working 30 hours week, some nights until midnight. If you just call Mom in that kind of scenario and try to fix the situation in one phone call, you are not going to make much headway. It took a home visit, a dinner, and four meetings until we reached the point where we could talk about resources and how to set Jason up for success. You have to take the time to build relationships.

Schools are inherently about relationships. If you are shifting away from the factory model of education, that means you are embracing teacher teams and interdisciplinary collaborative work. It means working with

students and their families in partnership. How might you help students collaborate with one another? How might you help the adults collaborate with one another? How might you partner, in a meaningful way, with student families?

## Worthy Skill 8: Critical Thinking and Problem Solving

How do you answer a non-Googleable question?

My friend, the engineer, is always on the hunt to find people who can solve problems. He has been doing this work for twenty years and has noted a trend in the last seven: that it is becoming harder to find people who can think independently and solve problems. He has a few theories as to why: standardized curriculum, rote learning, “safest path to college” check boxes, no start-up experience. Is this reality or the rantings of a curmudgeon? I don’t know, but I do know that school, for the most part, does not support its teachers in giving students thorny challenges that they may or may not be able solve, and that students too often know there is a “right” answer and it’s at the back of the textbook.

Eric Mazur, physics professor, completely changed how he designed and structured his curriculum when he realized that, while his incoming students knew the equations and laws in physics, many were unable to use them to solve real-world problems: “When asked, for instance, to compare the forces in a collision between a heavy truck and a light car, many students firmly believe the heavy truck exerts a larger force” (2007). I’ll admit that I did too—despite learning the equations in high school.

Critical thinking and creative problem solving are as much about how a teacher facilitates a class, as they are about the specifics of curriculum. Emmy describes how, when she would ask for an answer to a question in class, the teacher would ask her a question in return. Invariably that question would provide guidance on how Emmy could find the answer out for herself. Emmy notes that this skill can be learned in any classroom:

It can be done anywhere if you have the mindset. My advice would be to make small changes and push for change yourself. You can make small changes in a classroom, or any setting just by asking different questions, throwing our different ideas, forcing people to take a different look at things and to think things through for themselves.

Lisa describes critical thinking as “the idea of applying knowledge with a bias for action” and she notes that it takes time to build the confidence to apply your learning—with students and adults alike. She notes how oftentimes her newer teachers are not confident in their skills; she uses the design thinking framework to help teachers prototype lessons, think critically about what worked well and what might be improved next time,

“All his life, Klaus had believed that if you read enough books, you could solve any problem, but now he wasn’t so sure.”

—Lemony Snicket,  
*The Bad Beginning*

and encourages them to try it again. She underscores that critical thinking takes perseverance—perseverance to try something new, to look at it from multiple angles, and to keep iterating as you go.

Critical thinking and problem solving link strongly to self-efficacy. Evolving from an industrial era model of education requires a culture shift from the patriarchal model of management to one of self-efficacy and partnership. Do your students feel empowered to identify and solve their own problems or is there a culture of waiting for the teacher to both define and solve the problem? Similarly, how does this show up with the adults in your school? Do the teachers and administrators feel empowered to define and solve their own problems or is there a culture of waiting for leadership to both define and solve the problem? How might you begin to make the shift via the process of change?

In this chapter, we explored the multidimensional nature of the work when we answer the question, “What’s Worth Learning?” It impacts not only what we value in a child’s development, but also that of the adult’s and his or her changing role as the change process unfolds. Let’s go a level deeper in the next chapter as we follow the “What’s Worth Learning?” question with “How Is It Best Learned?” (Perkins 2006)

## Key Points

- There is widespread agreement that the basic literacy requirements of the industrial model of education are the floor, not the ceiling, of school performance and that we need to set our sights higher for our children.
- We need to redefine what’s worth learning for the 21st century.
- There is a rising tide of consensus as to the skills, knowledge, and habits of mind that will help us thrive as adults in the 21st century. These skills are interrelated and interdependent.
- Amid this growing consensus, it is vital for schools and communities to come together and to ask themselves, “What’s Worth Learning?” Your community’s answer to this question is the North Star that directs the work on its journey of change.
- Worthy Skills are
  1. Self-Directed Learning
  2. Creativity and Innovation
  3. Planning, Adaptability, and Agility
  4. Strengths Awareness and Application

5. Self-Efficacy
  6. Global Citizenship
  7. Relationship Building
  8. Critical Thinking and Problem Solving
- Children cannot learn these skills and habits of mind, if the adults are not given the opportunity to learn them as well—and it is these very same skills and habits of mind that are necessary to lead and implement change.

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## Questions for Reflection and Action

- What do you think our children should know and be able to do by the time they graduate high school? What are the worthy skills?
  - If you have already defined “What’s Worth Learning” in your mission or vision statement, are these skills and knowledge reflected in the day-to-day experience of teachers and students?
  - If not, how might you incorporate the desired skills and knowledge into your school’s curricula and pedagogy?
  - How might you incorporate the desired skills and knowledge into your school’s talent development process for adults? How might the development of those skills support the change process?
  - What additional questions did this chapter prompt for you?
  - What action items did this chapter prompt for you?
-