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Eliot Levine

Habits of Success: Helping Students Develop Essential Skills for Learning, Work, and Life

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Acknowledgments

About the Author

Eliot Levine is the Aurora Institute's Research Director and leads the *Competency*Works initiative. He has led local, state, and national studies of educational programs at the University of Massachusetts and Harvard University. His work has been disseminated in academic and trade journals, research and evaluation reports, the *Competency*Works blog, and a book that was named a Best Book for High School Reform by the Gates Foundation and published in three languages.

Eliot was a teacher for seven years at innovative public high schools in the Big Picture Learning and EL Education networks. He holds a Ph.D. in clinical and community psychology from the University of Maryland and a bachelor's degree in electrical engineering and psychology from the Massachusetts Institute of Technology. He completed a postdoctoral fellowship in program evaluation at the Harvard Graduate School of Education.

About the Aurora Institute

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Suggested Citation

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Education should play a central role in enabling students to reach their goals as adults, whether for careers, postsecondary education, civic participation, or relationships. Achieving those goals in the complex, modern world requires going beyond the academic knowledge that the traditional education system has emphasized. Building academic knowledge is still essential, but success in most professional and personal pursuits demands an additional set of skills and dispositions such as self-direction, collaboration, communication, and a growth mindset.

These "habits of success" can be developed—they are not fixed, innate traits—but traditional approaches to K-12 education invest minimal effort in helping students develop them in explicit and deliberate ways. Fortunately a notable shift is underway, with a growing number of schools, districts, and states acting on their vital responsibility to help students build habits of success.[1,2] Student-centered learning approaches such as competency-based education have prioritized this work, specifying that rigorous common expectations for learning include skills and dispositions in addition to academic knowledge, and that students should be empowered to make frequent, important decisions about their learning experiences.[3]

By sharing guiding principles, practical strategies, and lessons learned from the field and the literature, this report is intended to support schools, districts, states, and community settings that are seeking to build habits of success into the structures and routines of schooling, whether they are just getting started or already actively engaged. The goal is to help all students be better prepared for success in learning, work, and life. The report discusses what habits of success are, why they are important, how to promote and monitor growth, and recommendations for further development.

What Are Habits of Success?

Habits of success are the skills, dispositions, and mindsets needed for lifelong learning and participating effectively in work and civic life. They are often called "transferable skills," because they are learned in one context but can and should be applied or transferred to other contexts—such as collaboration skills developed in a science project that are later applied in an English course, internship, or summer job.

Habits of success are also closely tied to deeper learning, which helps students develop a wide range of important competencies. The National Research Council defines deeper learning as "the process through which an individual becomes capable of taking what was learned in one situation and applying it to new situations (i.e., transfer)."[4] Deeper learning requires acquiring content knowledge and knowing how and when to apply it to solve new problems.

Several research-based habits-of-success frameworks have emerged that overlap substantially but have meaningful differences. Ideally, research would show which frameworks lead to the best student outcomes, but definitive research has not yet answered that complex question. In the meantime, learning communities need to decide which habits of success they want to prioritize based on local considerations such as their graduate profile or relevant state policies, as well as practical considerations such as curricular and professional development resources available to support implementation.

Another important local decision is what terminology to use. The skills, dispositions, and mindsets that this report calls "habits of success" also go by many other names, including personal success skills, 21st century skills, habits of work, social-emotional skills, soft skills, adaptive competencies, and noncognitive skills. By including the words "skills," "habits," and "competencies," these terms convey the important message that students can improve over time; the qualities are malleable, not fixed. (The term "disposition" is sometimes used to mean a fixed trait, but it is used here and in much of the literature on habits of success to mean a habitual inclination that can be developed in response to life experiences.) Another essential consideration when schools and districts are selecting a term is whether it resonates with and makes sense to educators, students, families, and other key community members.

Why Are Habits of Success Important?

Before sharing formal evidence, it's worth noting that the importance of habits of success is obvious to anyone who has successfully navigated work challenges, civic ambitions, or adulthood in general. How far can you get without some ability to communicate, collaborate, think critically, and manage the pursuit of your own goals?

One place to observe the widely held belief that habits of success are important is in the "Portrait of a Graduate" that many schools, districts, and states have developed in recent years to redefine student success. Creating the portraits often begins with educators, families, and community members discussing their vision of what college and career readiness should look like for their high school graduates. Both academic knowledge and habits of success inevitably emerge as essential, but participants realize that their schools have not done enough to help students develop essential skills, dispositions, and mindsets. Habits of success therefore become a key component of the portrait of a graduate that articulates their collective aspirations for their students.[5] This is consistent with findings from a recent, nationally representative survey that 86% of parents agreed somewhat or strongly with the statement: "Learning life skills and social skills at school is just as important as learning academics."[6]

Evidence from research also demonstrates the importance of habits of success. A review of the field's key studies by the University of Chicago Consortium on School Research (UCCSR) yielded a valuable framework (Figure 1) for understanding how habits of success, or what the reviews calls "noncognitive factors," improve academic performance and life outcomes.[7] The framework breaks habits of success into several subcategories: academic mindsets, social skills, academic perseverance, learning strategies, and academic behaviors. The cycle begins with a positive school context and past academic performance helping students develop positive academic mindsets. The positive mindsets boost social skills, academic perseverance, and learning strategies, which in turn lead to improved academic behaviors and improved academic performance.

Figure 1 A Hypothesized Model of How Five Noncognitive Factors Affect Academic Performance within a Classroom/School and Larger Socio-Cultural Context
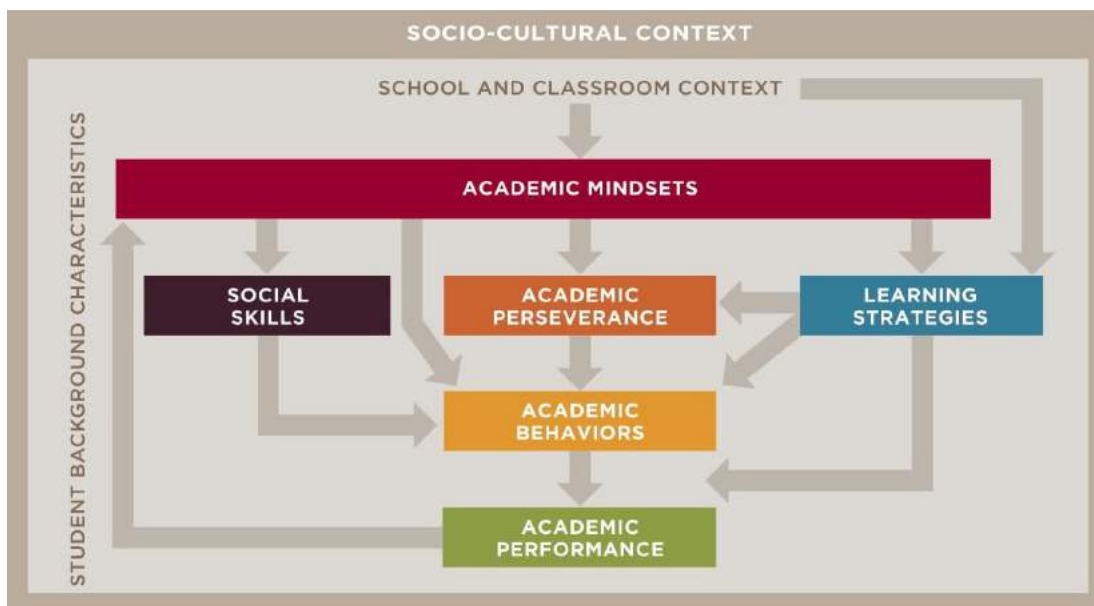
Note. From *Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance: A critical literature review* (p. 12), by C. Farrington et al., 2012, University of Chicago Consortium on Chicago School Research.

Based on their research, the authors noted that students with poor academic behaviors and performance may appear unmotivated, when what they may actually need is positive academic mindsets, learning strategies, and social skills. Helping students develop habits of success is therefore essential to build the academic behaviors that lead to strong academic performance. Improved academic perseverance and behaviors should be in service of meaningful, deeper learning within a supportive community that creates engaging learning opportunities and advances student agency.

Ensuring that students develop habits of success is also consistent with core principles of human development. A review of research by the Science of Learning and Development (SoLD) Alliance emphasizes that academic, cognitive, social, and emotional learning are inextricably linked and mutually reinforcing.[8] Educators need to help students simultaneously develop cognitive skills and habits and mindsets that support engagement and learning. These habits of success "are not 'hardwired' but develop in response to experience. All are correlated with achievement, and all can be taught, modeled, and practiced just like traditional academic skills."[9] The learning should be personalized, because every student is unique and learns differently based on their needs, interests, and talents.

Several frameworks exist that schools, districts, and states have adopted or customized based on local priorities. This section offers some principles and practices for developing local frameworks, followed by overviews of several frameworks that are well developed, provide materials to support implementation, and are used in school districts in the United States and Canada.

Developing Local Frameworks

The key considerations in selecting habits of success are often summarized as ensuring that they are meaningful, malleable, and measurable.[10] The Future of Education and Skills 2030 project from the Organisation for Economic Co-operation and Development (OECD) provides an expanded set of six principles for selecting key competencies.[11] Three of the principles seem essential for schools to apply when selecting habits of success. First, the construct should have a commonly used and understood definition, because promoting it will be difficult if students, teachers, and families don't understand what it means. Second, the construct should be generally understood to equip students for future challenges. Third, the construct should be malleable—it can be developed through a student's educational experiences.

A fourth principle is that the construct should be measurable. This principle reflects a belief that students' growth on habits of success over time should be assessed and that each habit has a learning progression or continuum that can be described numerically (such as a scale of 1 to 10) or categorically (such as beginning, approaching, meeting, and exceeding). Substantial work has begun to identify these progressions, but challenges remain, as discussed in the Assessing Habits of Success section.

The final two OECD principles are that the construct should be proven to influence future life outcomes, and that we should know how the construct develops in conjunction with other habits of success. Research evidence that would enable selecting habits of success based on these two principles is still in its early stages, making the other principles more applicable in most cases.

Developing local habits-of-success frameworks may also require creating "crosswalks" that map proposed frameworks onto existing district or state standards or portraits of a graduate. The crosswalks may be useful when developing a habits-of-success framework to ensure that it fulfills local or state requirements. Once the framework is developed, the crosswalk can help participants understand its connection with those requirements.

Table 1 was developed by the competency-based education innovation pilot in the Chicago Public Schools to communicate the relationship between their adaptive competencies (habits of success) framework, the city's profile of a graduate, and state standards. It shows a crosswalk for adaptability and flexibility, one of the district's four adaptive competencies.[12] Figure 2 shows a crosswalk between South Carolina's portrait of a graduate and one of its component habits of success, self-awareness.[13,14]

Table 1 Crosswalk of Competency-Based Education Adaptive Competencies with Chicago Public Schools Graduate Profile and Illinois State Board of Education Standards (Partial)

CPS CBE Adaptive Competencies	CPS CBE Adaptive Competency Descriptors	CPS Graduate Profile Descriptors	ISBE Standards
Adaptability and Flexibility I can persevere through challenges, engage in strategic problem solving, and demonstrate a willingness to receive and offer feedback in order to make adjustments as a life-long learner.	**Self-awareness and Self-management** • I can monitor and reflect on my own progress and set goals for growth based on rigorous learning standards and objectives. • I can acknowledge my personal struggles and seek supports and learning opportunities to overcome them. • I have multiple methods for overcoming a problem or obstacle.	**Adaptable and Independent Thinker** • Continuously reflects to advance intrapersonal growth of oneself as well as to foster the growth of others. • Exhibits social and emotional resilience and flexibility to adapt to changing circumstances and environments.	Set a long-term academic/career goal with dates for completion of the action steps.

Note. Adapted from *Chicago Public Schools CBE Key Adaptive Competencies Framework,* by D. Smith and T. Howell, 2021.

Figure 2 Crosswalk between South Carolina's Portrait of a Graduate and CASEL's Self-Awareness Competency


Note. From *Profile of a South Carolina Graduate and CASEL Competency Crosswalk,* by reDesign and South Carolina Department of Education, 2021 (https://personalizesc.ed.sc.gov/competencies-based-ed/sc-competencies-prototype/casel-competencies-pscg-competencies-crosswalk/).

Habits of Success Frameworks

Building Blocks for Learning

The Building Blocks for Learning framework (Figure 3) was developed by K. Brooke Stafford-Brizard to "represent a set of evidence-based skills and mindsets that facilitate and foster success in school and life."[15] Each row is intended to build on the row below, such as self-efficacy being an important foundation for resilience.

Figure 3 Building Blocks for Learning Framework
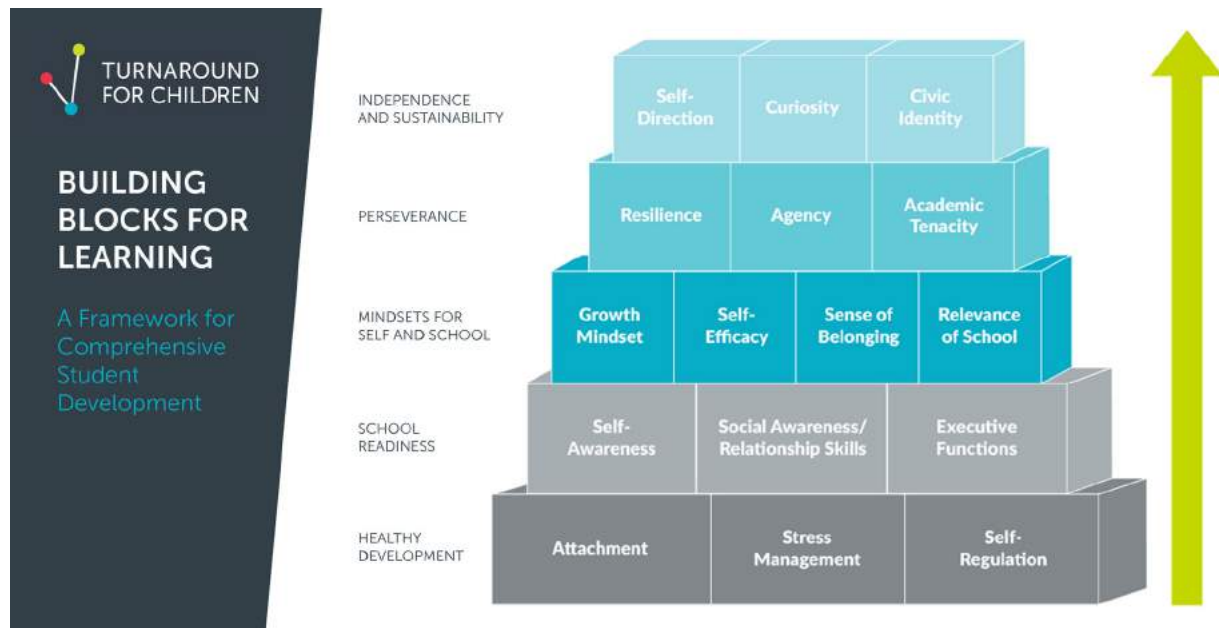
Note. From *Building Blocks for Learning: A Framework for Comprehensive Student Development,* by K. B. Stafford-Brizard (https://www.turnaroundusa.org/wp-content/uploads/2016/03/Turnaround-for-Children-Building-Blocks-for-Learningx-2.pdf). Copyright 2016 by Turnaround for Children.

The Summit Public Schools use the Building Blocks for Learning as the basis for defining their habits of success.[16] By the time Summit students graduate, they are expected to have demonstrated the "independence and sustainability" skills in the top row (self-direction, curiosity, and civic identity) without scaffolds and in multiple contexts.

New Hampshire Work Study Practices

As part of New Hampshire's commitment to build a competency-based education system, in 2013 the state legislature passed a bill declaring the requirement to "deeply engage students in learning rigorous and meaningful knowledge, skills, and work study practices for success in college, career, and citizenship." The bill defines "work study practices" (WSPs) as "those behaviors that enhance learning achievement and promote a positive work ethic such as, but not limited to, listening and following directions, accepting responsibility, staying on task, completing work accurately, managing time wisely, showing initiative, and being cooperative."[17]

Drawing on research and state legislative language, a statewide committee established a set of four work study practices that all New Hampshire students would need to demonstrate as evidence of college and career readiness: collaboration, communication, creativity, and self-direction. This framework has become

influential because the state department of education, New Hampshire districts and schools, and nonprofit organizations have collaborated to develop advanced research and practice materials for the framework, as well as its component habits of success. These materials will be discussed more in the sections of the report on promoting and assessing habits of success.

The CASEL Five

The Collaborative for Academic, Social, and Emotional Learning (CASEL) has developed a habits-of-success framework that many school districts and states have used (Figure 4). The five "broad, interrelated areas of competence" are self-awareness, self-management, social awareness, relationship skills, and responsible decision-making.[18] While most of the other frameworks presented in this report do not explicitly use the term "emotional," they overlap considerably with CASEL's framework and definition of social and emotional learning (SEL) competencies: "the essential knowledge, skills, attitudes, and mindsets that individuals need to succeed."[19]

Figure 4 CASEL's Social and Emotional Learning Framework
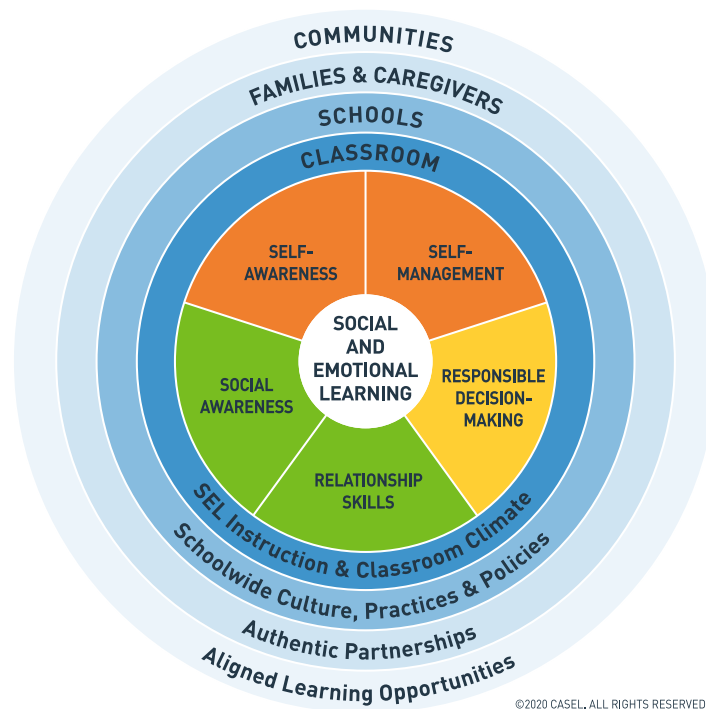
Note. From *CASEL'S SEL framework: What are the core competence areas and where are they promoted?* (https://casel.org/wp-content/uploads/2020/12/CASEL-SEL-Framework-11.2020.pdf). Copyright 2020 by CASEL.

In addition to this framework, CASEL provides a guide with extensive materials to lead school-based teams through a four-stage process of implementing habits-of-success work schoolwide.[20] Stage one is building foundational support among staff and developing a shared vision and plan. Stage two involves helping staff develop their own social, emotional, and cultural competence. Stage three is implementing a range of evidence-based strategies to promote social and emotional learning in students. Stage four uses implementation and outcome data for program improvement.

16 Habits of Mind

Educators Arthur Costa and Bena Kallick have developed a framework of 16 "habits of mind" (Figure 5) and shared them through a series of practice-oriented publications available from the Institute for Habits of Mind. A comprehensive treatment is available in their book *Learning and Leading with Habits of Mind: 16 Essential Characteristics for Success*. They describe the habits as "essential lifespan learnings" that will "help educators develop thoughtful, compassionate, and cooperative human beings who can live productively in an increasingly chaotic, complex, and information-rich world" (p. xvii).[21]

Figure 5 The 16 Habits of Mind

Note. From The Institute for Habits of Mind, 2021 (https://www.habitsofmindinstitute.org/wp-content/uploads/2021/03/HOM-Table-Large-Attribution.pdf). Licensed under Creative Commons.

MyWays Student Success Framework

The MyWays Student Success Framework, developed by Next Generation Learning Challenges, provides a comprehensive set of knowledge, skills, and habits needed for student success during and beyond K-12 education (Figure 6). The habits of success described here primarily fall under two of the MyWays domains: "habits of success" and "creative know how."

Figure 6 MyWays Student Success Framework

The MyWays competencies are grouped in four domains

Habits of Success are behaviors and practices that enable students to own their learning and cultivate personal effectiveness
Creative Know How involves skills and abilities to analyze complex problems and construct solutions in real-world situations
Content Knowledge focuses on subject area knowledge and organizing concepts essential for academic and real-world applications
Wayfinding Abilities cover knowledge and capacity to successfully navigate college, career, and life opportunities and choices

Note. From *Visual Summary of the MyWays Student Success Series*, by D. Lash and G. Belfiore, 2017, Next Generation Learning Challenges (https://s3.amazonaws.com/nglc/resource-files/MyWays_oooVisualSummary.pdf). Licensed under Creative Commons Attribution 4.0 International.

In the MyWays framework, the habits-of-success domain includes academic behaviors, self-direction, persistence, positive mindsets, learning strategies, social skills, and responsibility. (These competencies align closely with the University of Chicago framework described earlier, and with David Conley's "Four Keys to College and Career Readiness" framework.[22]) The MyWays creative-know-how domain includes critical thinking, problem solving, creativity, entrepreneurship, communication, collaboration, media and technology skills, and practical life skills. The overall MyWays framework and each of the domains are described in an extensive series of reports that also address promoting and assessing key competencies. The best way to grasp the overall project is to start with the Visual Summary of the MyWays Student Success Series.[23]

British Columbia's Core Competencies

Learning in the Canadian province of British Columbia is based on two sets of competencies. Curricular Competencies state what content, skills, and broad understandings are expected at each grade level in each academic area. Core Competencies, which develop across curricular areas, are "sets of intellectual, personal, and social and emotional proficiencies that all students need in order to engage in deep, lifelong learning."[24]

Many aspects of the three Core Competencies—communication, thinking, and personal & social—are habits of success. They have the following subcompetencies:

- Communication – communicating, collaborating
- Thinking – creative thinking, critical and reflective thinking
- Personal and Social – positive personal and cultural identity, personal awareness and responsibility, social awareness and responsibility.

For each subcompetency, the BC Ministry of Education provides details and supportive resources including learning targets or "profiles," sample student work, and connections with other subcompetencies. "Facets" break down the subcompetency further; for example, collaboration consists of working collectively, supporting group interactions, and determining common purposes.

Efforts to select, promote, and assess habits of success raise important considerations about equity and cultural responsiveness. Notably, most of the habits-of-success frameworks presented above make limited references to equity and culture. Some of them include subcategories such as valuing diversity, which British Columbia defines as: "Students value diversity, defend human rights, advocate for issues, and interact ethically with others. They are inclusive in their language and behaviour and recognize that everyone has something to contribute."

Building on those valuable goals, adding elements related to cultural competence to habits-of-success frameworks is an important next step in achieving deeper equity and justice. Schools, districts, and states would then have these elements readily accessible to build into their local frameworks. CASEL has recently moved in this direction, drawing more explicit connections between its framework and equity issues. CASEL advocates "Transformative SEL," "a process whereby young people and adults build strong, respectful, and lasting, relationships that facilitate co-learning to critically examine root causes of inequity ... aimed at redistributing power to promote social justice through increased engagement in school and civic life."[25]

The particular habits of success selected may reflect and support equity issues. For example, Sydney Schaef of reDesign discusses developing a "building networks" competency that recognizes social capital as a major factor causing disparate outcomes for subgroups whose inequitable access has led to smaller professional networks. A process in which reDesign encouraged a competency development team to "tap their own lived experience" yielded a competency called "develop and sustain self-knowledge, wellness, and self-love." The competency included skills such as "explore my cultural and social identity, engage and disrupt internalized forms of oppression, and express my identity through activism to advance social justice."[26]

Interpreting and applying current habits-of-success frameworks through an equity lens is essential to avoid undervaluing or misunderstanding the strengths, assets, and values of different cultures. With habits of success such as collaboration and self-management, for example, differences in norms can lead students and adults to "misinterpret each other's attempts to cooperate, share, and engage in collaborative problem-solving."[27] Efforts to help students build habits of success should therefore take place in a context where educators and school leaders develop cultural competence, recognize diversity as an asset, and build the capacity to reflect on how their own cultural perspectives influence their work with students.

Creating structures and offering personalized instruction that give all students opportunities to develop habits of success are also essential equity interventions. Research led by Felicia Sullivan of Jobs for the Future has shown that students from low-income families and students receiving special-education services demonstrate lower levels of self-direction than their peers, but this gap is smaller when their teacher has received professional development for instructing and assessing self-direction.[28] Sullivan argues that teachers routinely assess students' levels of habits of success, whether explicitly or implicitly. However, without deliberate strategies to help students develop habits of success, what teachers "are really assessing is the degree to which students' natural abilities, prior learning experience, or family life have contributed to their development in this area."[29]

Moreover, those prior learning experiences have taken place in schools and a broader society with demonstrable inequities based on race/ethnicity, gender, family income, and other factors, leading many students to develop academic mindsets that reduce their engagement with learning.[30] Providing instruction and experiences that build habits of success is a key component of reversing this trend. These interventions should occur in concert with building culturally responsive, equitable environments that reinforce students' sense of self-efficacy and being validated and treated fairly.[31,32]

Particular attention to equity and cultural issues is essential when assessing habits of success. Due to potential cultural differences in what is considered appropriate regarding communication, collaboration, self-direction, and other habits of success, confirming the validity of assessment results with local students, staff, families, and community members is important, as is ensuring that performance differences among students are not attributable to cultural or contextual factors.[33,34] The complexities of cultural validity underscore the importance of focusing on formative feedback and promoting student growth rather than summative, high-stakes assessments of habits of success, as further discussed in the assessment section.

Ensuring that students develop essential habits of success requires systematic strategies to provide opportunities for deeper practice, support, and reflection than are typical in traditional K-12 education systems. These are complex skills that require deliberate scaffolding, just as academic skills do. Promoting habits of success effectively requires identifying their components, implementing strategies that help students develop and sustain them, and reflecting on growth over time. Supporting educators to lead this work also requires professional learning opportunities and changes in school culture, structures, and policies. Implementation is typically iterative, deepening over time as schools and districts make changes based on lessons learned from initial efforts and an expanding body of supportive resources that they develop internally and integrate from external sources.

Components and Learning Progressions

Descriptions of the behaviors and mindsets associated with each habit of success help promote these habits. Thorough descriptions include a definition of the habit, its subcomponents, and a learning progression that gives students and educators a vision of how the habit is intended to develop over time. Although the components are listed discretely, recognizing their interdependence is useful, with development in one often influencing development in another. Several resources that describe components and learning progressions are available to adopt outright or adapt for local use.

Essential Skills and Dispositions

The Essential Skills and Dispositions[35] provide extensive resources and deep analysis to support understanding and promoting four habits of success—collaboration, creativity, communication, and self-direction. Each habit includes five components that are necessary for full expression, learning progressions for each subcomponent, and lists of words to help describe student behaviors. The report also provides examples of what active engagement looks like at different levels of development. The five components of self-direction are shown in Table 2.

Table 2 Components of Self-Direction from Essential Skills and Dispositions Framework

Five Components of Self-Direction	
Self-awareness	Reflecting on past experiences to evaluate one's own strengths, limitations, motivation, interests, and aspirations within different learning contexts.
Initiative & Ownership	Taking responsibility for learning, finding purposeful driving questions, shaping opportunities to fit personal interests and learning style, and seeking input from others.
Goal-setting & Planning	Developing long-term goals, establishing meaningful learning targets, identifying effective strategies, and planning out steps.
Engaging & Managing	Seeking out relevant resources and information to support learning goals and refining strategies. Maintaining effective pace. Reaching short-term benchmarks and long-term goals.
Monitoring & Adapting	Evaluating progress, adapting strategies, seizing failure in order to grow from mistakes, and attributing success to effort and motivation.

Note. From *Essential Skills and Dispositions: Developmental Frameworks for Collaboration, Creativity, Communication, and Self-direction*, by S. Lench, E. Fukuda, and R. Anderson, 2015, Center for Innovation in Education (https://www.inflexion.org/essential-skills-and-dispositions-development-frameworks/). Licensed under CC-NC-ND 4.0.

The learning progressions include four levels: beginner, advanced beginner, strategic learner, and emerging expert. For self-direction, beginners "are motivated by opportunities that pique their interests, and they explore other opportunities with support," while emerging experts "draw on experience, long-term goals, and aspirations to analyze learning opportunities and initiate collaborative approaches, in order to optimize processes and maximize their learning and development." The subcomponents of each habit also have learning progressions, such as the goal-setting-and-planning subcomponent of self-direction, in which beginners "work with others to set learning targets to meet goals," while emerging experts "diagnose the task, setting learning targets within and beyond constraints." The Essential Skills and Dispositions are widely used in New Hampshire, where they form the basis of the state's habits-of-success framework.[36]

British Columbia's Core Competencies

The British Columbia school system provides extensive descriptions, learning progressions, and illustrations of student work for the Core Competencies, its habits-of-success framework that was introduced earlier. For example, one subcompetency, social awareness and responsibility, is defined as involving

> "the awareness, understanding, and appreciation of connections among people, including between people and the natural environment. *Social Awareness and Responsibility* focuses on interacting with others and the natural world in respectful and caring ways. People who are socially aware and responsible contribute to the well-being of their social and physical environments. They support the development of welcoming and inclusive communities, where people feel safe and have a sense of belonging. A socially aware and responsible individual contributes positively to their family, community, and environment; empathizes with others and appreciates their perspectives; resolves problems peacefully; and develops and sustains healthy relationships."

Four different "facets" of this subcompetency are provided: building relationships, contributing to community and caring for the environment, resolving problems, and valuing diversity. These facets are also defined. For example, "resolving problems" is defined as: "Students identify and develop an appreciation for different perspectives on issues. They show empathy, disagree respectfully, and create space for others to use their voices. They generate, use, and evaluate strategies to resolve problems."

For each subcompetency, "profiles" are provided that represent a learning progression from basic to advanced levels. The levels are additive, with higher levels including the development from lower levels. Advancement through the learning progression is not tied to specific grade levels and describes development throughout life, not just during K-12 education. The six levels of social awareness and responsibility are:

1. I can be aware of others and my surroundings.
2. In familiar settings, I can interact with others and my surroundings respectfully.
3. I can interact with others and the environment respectfully and thoughtfully.
4. I can take purposeful action to support others and the environment.
5. I can advocate and take action for my communities and the natural world. I expect to make a difference.
6. I can initiate positive, sustainable change for others and the environment.

Each of these profile levels has descriptions. The most basic level has language such as "I am aware that other people can be different from me," whereas the corresponding language in the most advanced level includes "I build and sustain positive relationships with diverse people.… I can analyze complex social or

environmental issues from multiple perspectives and understand how I am situated in types of privilege. I act to support diversity and defend human rights and can identify how diversity is beneficial for the communities I belong to."

Building 21's Learning What Matters Framework

Building 21 offers learning progressions (called "continua") for several habits of success in its Learning What Matters framework. These learning progressions have 12 levels, with level 10 representing college and career readiness and level 12 representing college-level work. Part of the learning progression is shown in Table 3 for "building networks," a competency defined as "I can build relationships with diverse individuals and expand my network of people who can help and support me." The learning progression contains three components: build positive relationships, seek support and resources, and create and maintain a positive digital/online footprint.[37]

Table 3 Learning Progression for Building Networks Competency (Partial)

I can build relationships with diverse individuals and expand my network of people who can help and support me.			
	Level 4	**Level 8**	**Level 12**
Seek Support and Resources	• I can ask for help, support, and advice from people that I trust. • I can show my appreciation when someone helps me.	• I can actively seek out help, support, and advice from people in my network. • I can follow up with the individuals who help and support me to express my gratitude. • I can clearly and respectfully express my needs and make specific requests (e.g., asking for assistance writing a resume).	• When I complete a final product, project or performance, I can reflect on the people who supported me and how they helped me to achieve my goals. • I can follow up with the individuals who help and support me to express my gratitude. • I can think in advance about the types of support I need, and figure out who the best person within my network is to go to for help. • I can clearly articulate what I need help with and why. • I can actively seek out opportunities to connect with key individuals who could serve as a resource to me.

Note. The table presents part of a learning progression that has additional subcompetencies and levels. Adapted from *Habits of Success Competencies and Continua*, by S. Moumoutjis, 2021, Building 21 (https://docs.google.com/spreadsheets/d/17xmn-ZG DnxIFlpeuTNq82CJj9tbxf3orZ7PAe34X7iA/edit#gid=1468680663). Licensed under CC BY-NC-SA 4.0.

All of the Building 21 competencies and learning progressions are open source and available on its website.[38] In addition to the habits-of-success competencies, the personal-development, nextgen-essentials, and wayfinding-experiences competencies are also relevant to habits of success as defined in this report.

Synthesis of 21st-Century Skills

In her book *Assessing 21st Century Skills*, Laura Greenstein synthesizes several habits-of-success frameworks into extensive lists of behaviors (and, in some cases, learning progressions) associated with critical thinking, problem solving, metacognition, communicating, collaborating, self-direction, and others. For example, the "flexibility and adaptability" category (p. 30) includes:

- Adjusts to changes in assignments, responsibilities, schedules, and locations
- Makes appropriate changes in response to inputs and evidence
- Accommodates and adjusts to changing situations and settings
- Modifies one's thoughts, attitudes, and behaviors in response to new information
- Negotiates to seek acceptable conclusions and solutions
- Accepts and deals with both praise and criticism
- Commits to continuous change and growth.[39]

CASEL Five

The CASEL framework, introduced earlier, provides definitions and components for each of its five habits of success. For example, responsible decision-making is "the abilities to make caring and constructive choices about personal behavior and social interactions across diverse situations." It includes the following components:

- Demonstrating curiosity and open-mindedness
- Identifying solutions for personal and social problems
- Learning to make a reasoned judgment after analyzing information, data, and facts
- Anticipating and evaluating the consequences of one's actions
- Recognizing how critical thinking skills are useful both inside and outside of school
- Reflecting on one's role to promote personal, family, and community well-being
- Evaluating personal, interpersonal, community, and institutional impacts.[40]

The framework does not include learning progressions, but CASEL's assessment guide includes a generic proficiency rubric that could be helpful in developing learning progressions.[41]

16 Habits of Mind

Costa and Kallick's framework of 16 habits, introduced earlier, has been developed and described extensively, perhaps most comprehensively in their book *Learning and Leading with Habits of Mind*.[42] In their chapter on defining indicators of achievement, they describe the characteristics of students who are at advanced levels of the 16 habits. For two of the habits, they translate these descriptions into bullet points that could be used to create learning progressions, such as this list of possible indicators for their managing-impulsivity habit of mind:

- "Uses wait time as an opportunity to think through a problem.
- Attends to results of trial-and-error efforts to determine a course of action.
- Pays attention to what is working.
- Uses strategies for self-management such as note-taking" (p. 179).

Strategies for Promoting Habits of Success

Educators use two main types of promotion strategies: direct instruction and embedded learning.[43] Direct instruction focuses on developing habits of success as the primary learning objective. Embedded learning integrates the development of habits of success into learning activities that are also focused on academic competencies. Both sets of strategies are essential and customized to the needs of individual students, groups of students, and particular circumstances or contexts.

Direct Instruction

When educators first introduce habits of success to new students, or at the beginning of each school year, they often offer activities that focus on habits of success directly. These activities help students and educators develop a common language and purpose, remembering what the habits are and why they are important. Throughout the school year, teachers may spotlight habits of success they feel require more attention to accelerate progress or address particular events. Schools also make habits a prominent part of the daily culture, integrating them into group discussions, student conferences, policies, displays, routines, and celebrations.[44]

At Journey Elementary School in Harrisburg, South Dakota, many of the get-to-know-you activities during the first two weeks of school focus on habits of success. Then, throughout the school year, habits of success are reinforced in multiple ways. Posters on the wall display the Costa and Kallick *16 Habits of Mind* framework. During a morning meeting I attended there, with all students seated on the carpeted floor of a large common area, a beach ball was thrown high in the air, from student to student. Whoever caught it needed to share one way they had used the habits of mind recently. Student comments included "I was *persistent* in my soccer game" and "I was *flexible* with my time when I was figuring out my schedule." Later in the meeting, as students were leaving, a teacher called out, "Have a great day! Make good choices!"— which connects with habits from the framework such as managing impulsivity and thinking about your thinking. Students kept being brought back to thinking about important aspects of their behavior and habits of success.[45]

Pioneer Ridge Middle School in Eastern Carver, Minnesota, calls its habits-of-success framework "Behaviors that Support Learning." The behaviors are: strives for personal best, shows respectful behavior, interacts collaboratively with peers, engages in learning, exhibits responsibility, and demonstrates accountability. A teacher at Pioneer Ridge told me that they often discuss, model, and reinforce the behaviors with students, asking them "What does it look like? Sound like? Feel like?" During student-led parent and family conferences, students reflect on their progress in relation to the behaviors. At another school in the district, students teach and reinforce the behaviors by using them as themes for lessons during advisory periods.[46]

Four Rivers Charter Public School in Greenfield, Massachusetts uses three "habits of work and learning" (HOWLs)—preparation, organization, and participation. The school also has six "character virtues"—responsibility, respect, courage, compassion, perseverance, and integrity. One way that teachers and school leaders promote these qualities is by "catching students being good" each week and honoring them at a community meeting with a Polaris Award. The award includes a description of students' positive actions and a certificate noting the character virtue(s) they have exemplified. At a community meeting I attended, a student was recognized for voluntarily taking on substantial responsibility during a recent school activity and for being compassionate on an ongoing basis.

The meetings also include a weekly "Appreciations and Amends" section. One student offered amends to a teacher and classmates, saying "I'm really sorry for being disruptive in your class. Thank you for not flipping out on me. I'm trying to improve." Then a teacher thanked students for their support during a Model United Nations activity the day before, saying, "It was my first-time teaching that, and I appreciate your willingness to try to figure it out with me." All these activities provide opportunities for practicing, modeling, and reflecting on various habits of success.[47]

In schools with advisory programs, building and reflecting on habits of success is often a central part of advisory activities. Students typically stay with the same advisor and advisory group for multiple years, such as all four years of high school. The resulting deep and trusting relationships position both advisors and peers to understand each student well and provide useful feedback to inform growth on habits of success.[48]

Reflective discussions with students can also build metacognitive skills that advance habits of success. As recounted in *Recognizing the Critical Importance of Metacognition*, when third-grade teacher Terry Bolduc introduces habits of success (called "work study practices" in New Hampshire) to her students, "it involves a lot of talking and taking advantage of any opportunity to bring events and situations back to the importance of work study practices. Once I can show them examples of work study practices in action, only then can they begin the important work of actually thinking about them. I have had students tell me that they set work study practice goals, in the beginning, because I asked them to. Not always understanding the importance of them early on. But, as time passes, and they truly begin to think about them on their own, it's that metacognition—the thinking about their thinking—where I am able to hook them. Children are able to verbalize that they find themselves thinking about how they can be more self-directed.... Instead of coming in from recess and wandering around the room, they realize they know what's coming next, and they can prepare themselves. They can actually be a self-starter."[49]

Promoting habits of success requires precious time within the school day, but Bolduc believes that the time invested pays off in terms of greater classroom productivity, student learning, and teacher efficiency and effectiveness. She explains that as students understand and develop the work study practices, they can be streamlined into daily classroom discussions rather than being a large additional demand on time: "It's quick. It's in the moment. It's when you notice. We didn't spend all of our time talking about [work study practices]! And you start hearing kids talking about it with each other, so they start doing the work for you, such as pointing out when someone is being disrespectful."[50]

Another New Hampshire teacher, Sarah Benson, describes collaborating with several other teachers in a multi-age grouping of students in kindergarten through second grade, to co-design a unit that deeply integrated the work study practices by focusing on students being "community helpers." She said that at the end of the unit, "all six teachers were astounded at the increased level of engagement, autonomy, and agency of our students...over the short six-week unit. Our multi-age students displayed ownership of their learning during both the process and the product. Students also began to manifest an understanding of their individual self as a learner and as a collaborator. We saw kindergartners who wanted to be in charge of 'researching' and 2nd graders who deemed themselves responsible for getting the tools and materials needed. This sense of self and how they each contributed to the process of displaying learning was amazing, and we could see how truly meaningful it was to their deeper learning."[51]

Some resources available to help students develop specific habits of success are listed below. Gathering more resources that educators and organizations have developed for this purpose, evaluating them for effectiveness, and making them accessible are important needs for K-12 education.

Instructing and Assessing 21st Century Skills – The Center for Assessment provides detailed literature reviews and blog posts on promotion and assessment of four habits of success: critical thinking, collaboration, complex communication, and self-direction. Its findings also include recommendations for teacher preparation and professional learning.[52]

Teaching Adolescents to Become Learners – This extensive literature review, described earlier, explores how several habits of success influence academic performance. The chapters on academic mindsets, social skills, academic perseverance, learning strategies, and academic behaviors each contain a section on whether clear, actionable strategies for classroom practice exist. Those sections identify evidence-based programs associated with each habit of success.[53]

Navigating SEL from the Inside Out – The EASEL Lab provides profiles of 33 evidence-based SEL programs for grades pre-K to 5, including the program's target skills and instructional methods, as well as comparisons with the other programs to help guide selection. A distinctive and valuable element of this report is a discussion about and resources for implementing SEL interventions in out-of-school settings.[54]

Making Thinking Visible – This book introduces "thinking routines" that students can use to develop habits of success such as critical thinking and problem solving.[55] The thinking routines name concrete steps that students can use repeatedly over time and across disciplines when approaching challenging tasks.[56] Two thinking routines that the Two Rivers Public Charter School used to develop effective reasoning are Claim-Support-Question[57] and Know-Want-Ideas.[58]

Habits of Mind Reading Lists – Explaining that habits of mind "become a powerful analysis tool to investigate the behaviors and choices of characters from the simplest to most complex stories," the Institute of Habits of Mind has compiled extensive lists of books corresponding to each of its 16 habits and categorized into elementary, middle school, and high school levels.[59]

Growth Mindset for 9th Graders – This free, evidence-based program is designed to increase ninth-grade students' academic motivation, resilience, and achievement. The online program includes two 30-minute sessions with survey questions, brief reading passages, and writing exercises. In rigorous studies, the program has led to improved academic performance and persistence. It was developed by PERTS, a non-profit organization focused on scaling evidence-based strategies to advance excellence and reduce inequality in education.[60] PERTS also provides a Mindset Kit, a free set of online lessons and practices to help educators foster adaptive beliefs about learning.[61]

Habits for a Successful Personalized Learner! An Educator's Handbook – The Westminster School District in Colorado, a leader in competency-based education, has developed this handbook and a related one written for families, including a Spanish version. It includes a bank of sample activities targeted to elementary and secondary school students on topics such as demonstrating responsibility, resolving conflicts with peers, and other elements of the district's framework for habits of success.[62]

Embedded Learning

Deeper learning activities engage students in creating and applying knowledge on topics that matter to them. These activities provide opportunities to develop habits of success in relation to important questions and problems that affect students' lives. Improved habits of success then "[support] the process of deeper learning, in a recursive, mutually reinforcing cycle."[63]

Both teachers and students can intentionally structure learning experiences to target habits of success that are strengths to build on or areas for improvement. In a competency-based context, with students following varied pathways and pacing, different students might decide to emphasize different habits of success within the same learning experience, such as one student focusing on self-direction and another on collaboration. Out-of-school activities, whether organized by the school, family, workplace, or community organization, also provide rich opportunities to develop and demonstrate habits of success.[64]

Extensive resources are available to support deeper learning activities, such as project-based learning. PBLWorks provides a library of projects that incorporate habits of success as well as academic competencies. Its Project Designer tool enables adapting projects to local needs, and PBLWorks offers extensive resources and professional learning to support project-based learning. The book *Transforming Schools Using Project-Based Learning, Performance Assessment, and Common Core Standards,* by PBLWorks CEO Bob Lenz with colleagues Justin Wells and Sally Kingston, provides a clear and inspiring vision of how to build learning around this approach.[65]

The approach of schools in the EL Education network is also deeply based in projects or "expeditions." It offers an extensive online library of model projects,[66] as well as books such as *Core Practices: A Vision for Improving Schools,*[67] *Leaders of Their Own Learning,*[68] and others with valuable guidance about deeper learning activities that embed habits of success with academic competencies.

Lucas Education Research has developed the Sprocket portal, which provides full-year, project-based learning courses and an online community where teachers can share their strategies for implementing and adapting the courses.[69] In one of its English language arts courses, the question "How is the world composed for us, and how do we compose the world?" is translated into projects that explore themes of perspective, audience, and critical thinking. In the organization's project-based approach to the Advanced Placement environmental science course, students "engage in investigations and simulations that require them to think like scientists, policy-makers, farmers, and other professionals in real-world settings." These courses are based on series of rigorous quantitative studies of project-based learning that Lucas Education Research sponsored. The studies showed significant, positive impacts on academic outcomes and student engagement across a diverse range of students, settings, and academic disciplines.[70]

The Center for Assessment's literature reviews and blog posts, mentioned earlier, share findings that affirm the value of deeper learning approaches in promoting habits of success. They also provide guidance on structuring learning to facilitate developing habits of success. Collaboration, for example, does not happen simply by placing students in a group. Rather, more authentic collaboration will take place if groups are small, clear guidelines for participation are provided, tasks are authentic and complex, students receive formative feedback on their collaboration, and time is provided for reflections on individual and group processes and progress.[71] For self-direction, students benefit from structured opportunities to plan the steps and resources in a task, monitor and adjust their plans, and evaluate their process and performance.[72] Advice for effective learning is also provided for critical thinking and complex communication.[73]

The purposes of educational assessment are supporting, monitoring, and communicating student progress and proficiency over time; informing efforts to improve practice; evaluating program effectiveness; and providing data to guide accountability and policy decisions. Assessment should support learners in becoming more skillful in applying the habits of success, reflecting on their progress, and identifying successes and areas for further growth.

In current practice, student progress in habits of success is primarily assessed with a set of complementary approaches that include performance tasks, student self-assessments, and feedback and ratings from teachers, peers, and mentors. These often serve as formative assessments, helping students to consider how they have grown and to plan next steps. In some settings they also serve as summative assessments that are reported on report cards or transcripts, identifying students' growth along a learning progression.

Any summative assessments of habits of success should be separate from grading of academic competencies. The longstanding, traditional practice of raising or lowering academic grades based on behavior, participation, or perceived effort leads to the serious problem of students and families being unable to judge their academic progress accurately.[74]

Performance Assessments

Complex, authentic projects provide rich opportunities for students to demonstrate habits of success. These can be extended projects that last weeks, months, or even longer, as with extended work-based-learning or service-learning opportunities. Alternatively, they can be briefer tasks that are designed explicitly as assessments.[75]

Rubrics that incorporate the components and learning progression of a given habit of success are typically used to describe student performance. The New Hampshire Learning Initiative provides rubrics for each of the four work study practices—collaboration, communication, creativity, and self-direction—for five different age bands (or ranges of grade levels, in more traditional terms). Part of the rubric for self-direction in grades 9-12 from the BEST Self-Direction Toolkit is shown in Figure 7.[76,77] The four levels of the developmental progression are "emerging," "developing," "applying," and "extending," and they are shown for three of the five components of self-direction—self-awareness, initiative and ownership, and

goal setting and planning. (The two components not shown are engaging and managing and monitoring and adapting.) The toolkit provides similar rubrics for four different age bands.

Figure 7 Self-Direction Rubric for Grades 9-12 (Partial)

BEST Self-Direction Rubric

	Self-Awareness Reflecting on past experiences to evaluate one's own strengths, limitations, motivation, interests, and aspirations within different learning contexts.	**Initiative & Ownership** Taking responsibility for learning, finding purposeful driving questions, shaping opportunities to fit personal interests and learning style, and seeking input from others.	**Goal Setting & Planning** Developing long-term goals, establishing meaningful learning targets, identifying effective strategies, and planning out steps.
Emerging	I can... Analyze how my interests have sometimes been in conflict with expectations of others and generate ways I might overcome this in the future.	I can... Choose a new learning opportunity from options provided and explain how it reflects personal curiosity or interests.	I can... Set a project-based goal modeled after examples provided and use familiar strategies to develop steps and strategies to accomplish it.
Developing	I can... Explain how my strengths or strategies used successfully in the past can be applied in a new learning situation.	I can... Collaborate with others to share control of shaping the direction of a new learning task while pursuing my interests or learning goals.	I can... Analyze project-specific expectations, identifying resources needed, strategies suited to completing the tasks, and steps to complete the project.
Applying	I can... Analyze my ability to adapt or expand my strengths and interests to successfully complete a new task or project.	I can... Take responsibility for my own learning by establishing driving questions to guide my own learning process.	I can... Set a personally meaningful project-based goal, with steps to complete the plan and possible challenges along the way with alternative strategies or resources needed to complete the project.
Extending	I can... Cite examples from my work to evaluate how I have expanded my strengths and interests by setting learning goals beyond assigned tasks.	I can... Seek input to help me analyze the content and context of learning tasks in order to reshape, extend, or enhance my own learning.	I can... Independently seek input on a project-based learning goal and plan that pushes my learning beyond the task, and use feedback to improve the plan.

Note. Adapted from *BEST Self-direction Toolkit, Version 1.0*, n.d., Building Essential Skill Today Research-Practice Partnership (https://www.best-future.org/wp-content/uploads/2020/10/BEST%20Self-Direction%20Toolkit-v1.pdf). Licensed under CC BY-NC-SA 4.0.

The toolkit also provides two detailed tasks for student self-assessment, which is one of the most common approaches to assessing growth in habits of success. The first task guides students in reviewing the self-direction rubric for their age band, reflecting on their current use of self-direction, rating their current ability level, and identifying one area of strength to build on and one area to improve. The second task is a "self-direction road map" that students use from the beginning to the end of a given project. The road map guides students through a process of developing an action plan, selecting a self-direction goal to focus on throughout the project, obtaining input from others, revising the plan as needed, reflecting on progress in the middle and end of the project, and sharing evidence of progress and reflections. Both tasks include extensive instructions and graphic organizers for teachers and students, such as the student self-assessment of one of the five components of self-direction shown in Figure 8.

Figure 8 Self-Assessment of Self-Direction Skills (Partial)

1. Self Direction	2. I can... What have I accomplished in past work that makes me feel I can be confident in this area? What do I feel I can work on to be more confident in this area?	3. My level is... How much guidance do I need to feel confident in my work?	4. Why that level? Explain why you chose your level using the Self-Direction Rubric as a guide. What evidence from past work can you use to support chosing this level?
Self-Awareness *Reflecting on past experiences to think about my:* • Strengths • Challenges • Motivations • Interests		○ Emerging ○ Developing ○ Applying ○ Extending	

Note. From *BEST Self-direction Toolkit, Version 1.0*, n.d., Building Essential Skill Today Research-Practice Partnership (https://www.best-future.org/wp-content/uploads/2020/10/BEST%20Self-Direction%20Toolkit-v1.pdf). Licensed under CC BY-NC-SA 4.0.

The Two Rivers Learning Institute, a nonprofit organization associated with Two Rivers Charter Public School in Washington, D.C., has developed a series of short performance tasks to assess whether students are developing specific habits of success and can apply them to new situations.[78] Critical-thinking assessments, for example, require students to make their thinking visible by describing it, writing about it, or demonstrating their work. The tasks are complex, with multiple solutions, but are situated in familiar contexts, and they keep math and literacy demands low to focus the task on assessing critical thinking rather than academic competencies or extraneous knowledge. Rather than assigning a single score, teachers rate students on each component of a common rubric, which permits more targeted feedback about strengths and areas for improvement. Calibration activities in which multiple teachers use a scoring guide to score the same pieces of student work are used to increase consistency and fairness of scoring.

The Two Rivers Learning Institute also provides rubrics and performance tasks for assessing effective reasoning, decision making, and problem solving. An effective-reasoning task designated for grades four and five asks students to determine how an elementary school should spend its $25,000 school-activities budget in ways that meet the interests of as many students as possible.[79] In addition to summarizing their proposal in a table, students provide a written defense of their proposal, discuss potential criticisms of their proposal, describe how someone else might defend a different proposal, and then use these reflections to revise and strengthen their own proposal. A more active performance task used at Two Rivers assesses critical thinking using a group bridge-building challenge.[80]

Students can also design performance assessments in collaboration with other students, teachers, families, and mentors outside of school. These can serve as culminating assessments for projects developed by students based on their interests. In Big Picture Learning schools, students present multiple exhibitions (public displays of learning) per year with assessment criteria that are individualized to the student and the

real-world needs and expectations of a specific internship project.[81] Most formal exhibitions take place in the school building, but student demonstrations of learning also often take place at internship sites, such as creating a neon sign, serving as a museum tour guide, designing and marketing a t-shirt, and leading a fetal alcohol syndrome prevention workshop. Exhibitions include student reflections on habits of success, known as "personal qualities" in Big Picture Schools.

For each of British Columbia's Core Competencies (its term for habits of success) and subcompetencies, the Ministry of Education provides an extensive list of "illustrations"—examples of how students have demonstrated their mastery at different levels of development. The examples include work samples, reflections, interviews, stories, photos, and videos, often accompanied by teacher reflections and lesson plans. For *Social Awareness and Responsibility,* the Illustrations include designing a logo for a universal washroom, writing an apology letter, and researching phobias. A given Illustration often provides evidence for multiple subcompetencies.[82]

Envision Learning Partners defines performance assessment as "the demonstration and evaluation of applied skills.... Someone shows what they can do by doing it, and that performance or creation is observed and checked against some goal, standard, or definition of quality."[83] The organization explains that high-quality performance assessments are authentic, elicit evidence of learning that matters, and are tight on success criteria but open to different learner approaches. The performance assessment should also be "a learning experience in and of itself." Envision Learning Partners provides a resource bank with extensive tasks, rubrics, and quality criteria for various performance assessments and defenses of learning, including portfolios, capstone projects, and student-led conferences. The organization has also developed detailed supports for virtual defenses of learning.[84]

The Stanford Center for Assessment, Learning, and Equity (SCALE) has developed a rubric targeted to school and district personnel to support the development of high-quality performance assessments.[85] The rubric includes elements that refer to habits of success, such as "Student product provides clear evidence of higher order thinking skills and/or 21st century skills, such as critical thinking, problem solving, effective communication, collaboration, and meta-cognition." SCALE has also assembled a Performance Assessment Resource Bank of performance tasks, professional learning tools, and examples of how schools and systems across the United States have integrated performance assessments into their assessment systems.[86]

Interviews, Observations, and Rating Scales

Complex projects and performance tasks are essential for supporting deeper, authentic learning and assessment. However, the substantial time they require for training, administration, and scoring means that using them exclusively is not practical in most settings. Fortunately, other valuable assessment strategies— such as interviews, observations, informal formative feedback from teachers, and rating scales for self-assessment and peer and teacher ratings—are often used. Some of these strategies offer time and cost efficiencies, more detailed responses, or the ability to reveal information that is difficult to obtain through observation. While the discussion so far has focused on monitoring student progress and proficiency, these

approaches can also support other purposes of assessment, such as improving practice, evaluating program effectiveness, and guiding accountability and policy decisions.

Student self-assessments are important in developing students' agency and metacognition. Learning to assess their own strengths and areas for improvement helps them become lifelong learners and judge their readiness for new challenges. At Pioneer Ridge Middle School in Minnesota, students reflect on their own habits of success in advisory at the end of every week, and the reflections are shared with parents at the end of the month.[87] Terry Bolduc, the elementary teacher quoted earlier, has deepened the student-agency aspect of self-assessment by having students help her develop the rubrics they use to self-assess habits of success.[88]

The Surrey Schools in British Columbia require all students in kindergarten through ninth grade to complete a self-assessment of the Core Competencies (their term for habits of success) at the end of the school year, along with ongoing self-assessment throughout the year. A report that supports this process offers guiding principles, reflection prompts, documentation tips, graphic organizers, and sample student self-assessments.[89] The reflection may focus on one or more of the Core Competencies and take a variety of formats, such as a written or digital summary, portfolio review, mind map, video, and transcribed discussion with a teacher. The reflection prompts are intended to help students take ownership of moving their learning forward in relation to strengths, challenges, goals, and plans. One of the sample graphic organizers is shown in Figure 9. (The abbreviations "C," "T," and "PS" in the three triangles represent the three Core Competencies: communication, thinking, and personal and social.)

Figure 9 Graphic Organizer for Student Self-Assessment of British Columbia's Core Competencies

Note. From *Surrey Schools Leadership in Learning: Self-assessment of Core Competencies, Elementary*, n.d., Surrey Public Schools (https://www.surreyschools.ca/csl/Documents/SD36CoreCompetencies-ELEMENTARY.pdf).

Much like self-assessment, assessment by peers is a valuable strategy for building and reflecting on habits of success. Rubrics and rating scales that are used for self-assessment or assessment by teachers can also be used for group discussions and feedback sessions. In *Grading for Equity*, Joe Feldman advocates creating "communities of feedback" that increase equity by democratizing evaluation and empowering students to judge each other's performance. Students also build the essential communication and collaboration skills of giving helpful feedback and being able to reflect openly on feedback from others. Feldman describes pedagogical strategies to scaffold this work, such as modeling and practicing how to give and receive constructive feedback through sentence starters and role plays.[90]

In their book on student-engaged assessment practices, Ron Berger, Leah Rugen, and Libby Woodfin also provide principles and strategies to develop a positive culture for peer feedback and critique, including guidance for using models and structured protocols.[91] They caution that some students may be particularly vulnerable to feeling hurt by critical feedback, "especially if they have not experienced much school success and have received many messages of negative criticism (both implicit and explicit). School and classroom guidelines must be carefully built and reinforced, but individual feedback must also be tailored and shaped with the particular student in mind." Clearly, engaging in these types of thoughtfully structured feedback activities can themselves be powerful opportunities to build interpersonal habits of success.

Another knowledgeable source for assessing habits of success can be peers or adults connected with learning that takes place outside the school, such as family members, coaches, mentors, customers, and peers in a virtual network.[92] Such learning may be sponsored or structured by the school, such as senior projects, internships, or co-curricular activities, or it might be entirely separate. Either way, students are often engaged in activities that yield clear demonstrations of self-management, creativity, social awareness, and other habits of success. Schools can develop mechanisms and policies that enable students to show how outside-of-school activities demonstrated growth on school-based learning progressions. This opportunity benefits all students but may be particularly helpful for students whose depth of engagement in activities outside of school leads them to demonstrate habits of success that they do not have the opportunity or the inclination to demonstrate at school.

CASEL provides an interactive tool, the SEL Assessment Guide, with a searchable database of assessments.[93] The user enters a habit of success plus the grade levels and respondent or format of interest (student self-report, teacher/staff, performance measure, family, peer). The tool then returns assessments that fit those criteria, as well as additional information about each assessment. Some available assessments of habits of success are not included, but the Assessment Guide is an extensive, valuable resource.

Assessing for Deeper Learning

The New Hampshire Learning Initiative has conceptualized the range of assessment approaches for habits of success along a continuum for deeper learning.[94] At the left end of the continuum, traditional practices focus on students complying with expectations about behavior and work completion that are the same for all students and throughout the school year. Toward the middle is "curriculum-embedded assessment," in which students are assessed on the habits of success that are integrated into a given unit of study. At the right end of the continuum, "competency-specific assessment" and "student growth assessment" correspond to the deepest learning. Students are recognized as individual learners who are developing specific habits of success that are related to their personal needs and that transfer to all their learning

experiences. Students are the primary evaluators, and they use reflection and goal setting to monitor and advance their progress.

This continuum is valuable in thinking about the purposes and strategies for promoting and assessing habits of success. Clearly, the goal is to eliminate the traditional, compliance-based practices while increasing activities that facilitate deeper learning. However, as with many deeper-learning practices and school-transformation efforts, the shift may happen incrementally as all participants deepen their skills and understanding of new strategies. Moreover, the goal is not to eliminate curriculum-embedded or competency-specific assessment; a range of practices within the upper end of the continuum can be productive.

Grading and Reporting

When considering how to approach grading and reporting on habits of success, it's helpful to return to the purposes of educational assessment mentioned earlier: supporting, monitoring, and communicating student progress and proficiency; informing efforts to improve practice; evaluating program effectiveness; and providing data to guide accountability and policy decisions. Regarding the first purpose, grading and reporting should ensure that students and parents are well informed about and can clearly understand the student's progress in relation to the curriculum, learning standards, and competencies.

Most researchers and practitioners in student-centered learning models argue that habits-of-success assessment should focus on formative feedback and student self-assessment that support student growth. However, some schools also use summative habits-of-success grades with consequences for participation in school events, extracurricular activities, and honor roll.[95] A common concern is that tying habits of success to these types of consequences risks motivating students to "compliantly perform soft skills for the teacher's approval and extrinsic reward, depriving students of experiencing their own sense of *why* the soft skills are important and thereby stunting their internal motivation to develop and use soft skills."[96] Moreover, given the lack of established learning progressions and performance thresholds for habits of success, summative grades are sometimes assigned based on measures that do not adequately reflect the construct. For example, self-direction might be graded based on the percentage of homework completed or whether a student was on task when observed at a moment selected randomly by the teacher.

Education leaders from New Hampshire who are deepening the work on habits of success nationally believe that habits of success "should be reported, [but] the reporting should serve as a form of feedback to inform learning and growth and be part of self-reflection and goal setting. Students should work collaboratively with their teacher to determine what they need to work on to improve.… However, applying traditional grades to work study practices ruins their meaning."[97] Also, the valuable student self-assessment

strategies discussed earlier could be compromised if "students saw their honest reflections as potentially coming back to haunt them in the form of a 'grade.'"[98]

While formative assessments should be the primary tool for supporting student growth, high-quality summative assessments of habits of success would be valuable for evaluating program effectiveness and improving practice.[99] Toward that end, the National Research Council recommends that foundations and federal agencies invest in research that defines and develops valid, reliable, and fair (in enabling students to show what they know) assessments of habits of success to support formative assessment and, pending the findings of that work, possibly summative assessment.[100]

Using an approach that mirrors traditional grading of academic competencies, many schools' assessment of habits of success is course-centered, with students receiving a grade on each habit of success in each course. In contrast, some habits-of-success assessments are more student-centered, based on a body of evidence that students build over time across all their learning activities.[101] These two approaches highlight different purposes of developing and assessing habits of success. Is the goal to know whether a student is, for example, an effective collaborator in all courses, or that a student has demonstrated effective collaboration in selected contexts?

The Center for Assessment provides valuable guidance related to this question and the generalizability of habits-of-success assessments. It notes: "Accumulating a body of evidence over time across content areas such as in a student portfolio or senior exhibition could allow for broader claims to be made." However, the center also recognizes that a student's performance on a single activity can be helpful in discussing a student's current abilities and in planning future learning.[102] Moreover, the center points out the limits on time available for assessment and the need for efficiency. How these competing priorities are resolved depends on considerations such as what claims the assessments are intended to support and what decisions will be made based on the results.[103]

The "course-centered" and "student-centered" approaches described above both typically locate students within a rubric or along a learning progression, such as an "advanced beginner" in collaboration and an "emerging expert" in self-direction. The student-centered approach also enables consideration of evidence from out-of-school activities. This approach can be valuable for all students, and particularly for those whose passions for violin concertos, engine repair, or rock climbing provide evidence of habits of success that are less evident at school.

Schools that report habits-of-success assessments on college transcripts use multiple formats. The sample transcript in Figure 10 from Souhegan High School shows a student's final grades on New Hampshire's four work study practices, averaged across courses, for four years of high school. Transcripts from the Mastery Transcript Consortium provide a two-page summary that can be reviewed quickly. An excerpt from that summary, showing habits-of-success credits, is shown in Figure 11. Deeper evidence of specific academic

competencies and habits of success is available through links in the online summary transcript.[104] Another approach that provides a graphic representation of a student's performance levels, with the ability to link to deeper evidence, is the International Big Picture Learning Credential.[105]

Figure 10 Grades on Work Study Practices from Sample High School Transcript

Graduation Competencies	9	10	11	12
Self-Direction	Extending Beyond	Meeting Standard	Extending Beyond	Extending Beyond
Collaboration	Approaching Standard	Meeting Standard	Extending Beyond	Extending Beyond
Communication	Meeting Standard	Meeting Standard	Meeting Standard	Meeting Standard
Critical Thinking	Meeting Standard	Approaching Standard	Meeting Standard	Extending Beyond

Note. From Souhegan High School, New Hampshire, 2021.

Figure 11 Grades on Habits of Success from Sample Mastery Transcript
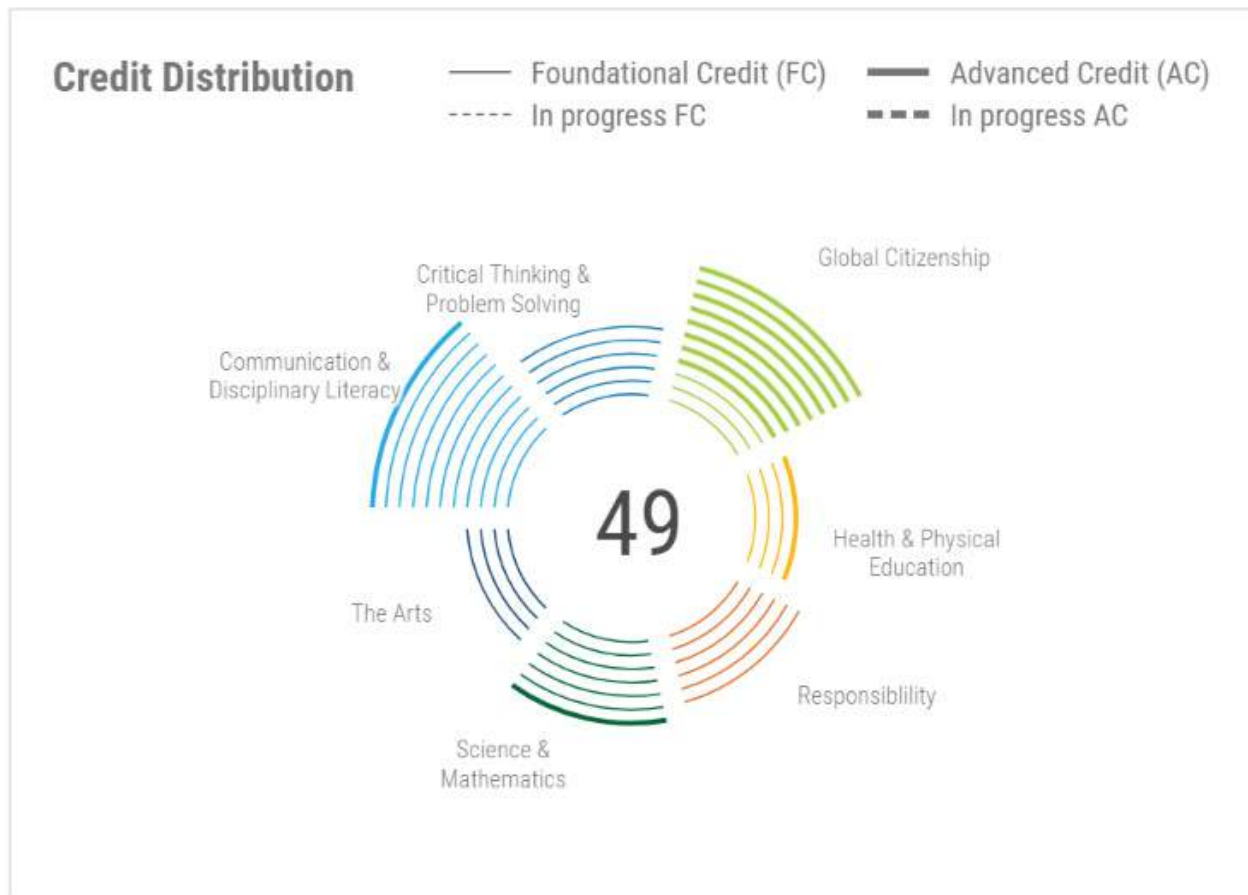
Note. From *Key Features of the MTC Mastery Transcript*, 2021, Mastery Transcript Consortium (https://mastery.org/what-we-do/mastery-transcript/).

Professional Learning

Supporting educators and school leaders to develop effective habits-of-success frameworks, deepen promotion and assessment, and develop cultures and structures that are conducive to this work requires professional learning opportunities and resources. As with any substantial change to core educational practices, effective professional learning will require a shared vision tailored to the local context, as well as the leadership and resources needed to enable continuous improvement over time.[106]

New Hampshire provides an outstanding example of professional learning strategies that have supported continuous improvement of teaching and assessing habits of success. The Department of Education collaborated with schools, districts, and nonprofit organizations to develop a statewide framework of habits of success and to support development of innovative practices at selected schools. Professional learning communities, convenings, and in-person and online courses all focused on building capacity and understanding. One district's approach to developing teacher leadership and ownership of the process became a model that many other districts used to integrate the habits of success into their learning systems. Teachers and school leaders were encouraged to engage in action research and then share their learning, and an annual "Work Study Practices Symposium" provided a forum to deepen this work in a statewide community of practice.[107]

As New Hampshire's example suggests, essential professional learning takes place both within and beyond individual schools and districts. Arthur Costa and Bena Kallick, who have developed extensive professional learning resources, have found: "In most schools that have succeeded in implementing the habits of mind, someone is a 'cheerleader' for the habits. It might be an administrator, department chair, mentor teacher, resource teacher, or other staff member."[108] Often a team of staff members provides leadership through various roles such as collecting teaching and assessment resources for their colleagues to use, orienting new staff members, and communicating with families.

The process of developing a portrait of a graduate is often a primary source of the shared vision for helping students build habits of success. Some districts are also developing a "portrait of an educator" that helps to support and equip educators in bringing the portrait of a graduate to life.[109,110] Professional learning supports implementing the vision, focused on building adult mindsets and skills, as well as school and district policies and structures. A comprehensive resource to support this process is the CASEL Guide to Schoolwide SEL Essentials.[111] It proposes a multi-year task list and timeline and provides rubrics, worksheets, sample meeting agendas, and more to support planning, assembling an SEL team, strengthening student and adult SEL competence, and continuous improvement.

Three additional tools provide valuable frameworks for schools and teachers to assess their current work and identify next levels of implementation. The CBE Readiness Tool for Personal Success Skills, developed by Karin Hess, Rose Colby, and Daniel Joseph, identifies four dimensions and descriptors for schools at three levels: initiating, emerging, and implementing.[112] At the implementing level, for example, the four dimensions and their descriptors are:

- Leadership – Policies and practices reflect the portrait of a graduate and integrate personal success skills as indicators of competence for graduation.
- Instruction and Assessment – Student engagement measures and reflection opportunities consistently monitor the learning experience, learning outcomes, and personal success skills.
- Learner Culture – Learning environments and interactions are responsive to learner agency and are

flexible in meeting students' learning needs, as articulated by the learners' goals and self-reflections. Learners emerge as confident and independent learners.

- Organizational Structures – School/district instructional delivery methods support the integration of personal success skills with academic learning. Educators co-design personalized learning activities and assessments consistent with the portrait of a graduate.

The second tool is the Broader Definition of Success Learning Progression, created by 2Revolutions. It focuses on the competency, "Teachers will provide opportunity and support for all learners to foster central dispositions and develop critical 21st century skills that will allow them to successfully navigate the next stages in their journey."[113] The learning progression identifies three subcompetencies and descriptors for teachers at four levels: investing, developing, leading, and innovating. At the leading level, for example, the descriptors include:

- I can collaborate with students, families, and community partners to evaluate our existing definition of success and generate momentum/will for broadening our existing definition.

- I can participate in a collaborative process of identifying and revising competencies and indicators across a developmental continuum in order to fully articulate our broader definition of success.

- I can measure the effectiveness of the learning opportunities I/we are offering to students by intentionally experimenting with/developing my skills in utilizing assessment strategies such as assessment for learning and performance assessment.

The third tool is the Whole-Child Design Inventory (WCDI) by Turnaround for Children.[114] It is designed to reflect on how aligned a school is to whole-child design principles and practices. It includes a "knowledge, skill, and mindset-building" scale and includes items such as:

- Skills, habits, and mindsets that support learning are intentionally included in instruction.
- Students set goals for their own learning.
- Staff help students describe their thinking in order to make thinking visible.
- Modeling of essential skills and mindsets is done by faculty.

A related resource from Turnaround for Children is the Whole-Child Design Blueprint, which offers a set of "knowledge, skill, and mindset development" tools and principles.[115]

Many additional resources are available to support professional learning. The Broader Definition of Success Learning Progression described above is aligned with online courses and briefer resources that 2Revolutions and Next Generation Learning Challenges have created to develop a shared vision for habits of success and associated skills in promotion, assessment, and revamping school structures and culture.[116] In 2021, PBLWorks introduced a Social-Emotional Learning in Project-Based Learning course that enables teams to work through a high-quality project using an SEL lens and integrate SEL competencies into their own project designs.[117] Many organizations that support student-centered learning approaches have also developed expertise in facilitating professional learning on these topics.

Helping students build strong and enduring habits of success is a long-term undertaking. As learning communities are developing, launching, and refining their work, teams and individuals will continually identify areas where they want to go deeper. Whether for selecting, promoting, or assessing habits of success, the principles and resources explored in this report can provide a foundation to support professional learning and deepening practice.

Extensive and valuable research, development, and implementation have already taken place, but much work remains to create a system that supports all students in building strong habits of success. The following recommendations provide an overview of major components of this work. They are supported by more detailed explanations and resources cited within the body of the report.

Ensure that efforts to build habits of success are equity-focused and culturally responsive.
Helping students build habits of success is essential to achieve educational equity, and each of these recommendations—building a shared vision, expanding the evidence base, developing frameworks, creating promotion and assessment resources, building systematic approaches, and advancing policies—should be conducted with cultural responsiveness and an equity focus. Doing so will require continuing to build understanding and action to transform current inequities and expand successful strategies in promoting and assessing habits of success, focusing not just on the classroom level but also on broader school, district, state, and sociocultural contexts.

Interpreting, promoting, and assessing current habits-of-success frameworks through an equity lens is essential to avoid undervaluing or misunderstanding the strengths, assets, and values of different individuals and cultures. Efforts to help students build habits of success should therefore take place in a context where educators and school leaders develop cultural competence, recognize diversity as an asset, and build the capacity to reflect on the strengths and limitations that their own cultural perspectives bring to their work with students.

Build a shared vision of the importance of habits of success. Supporting all students in building strong habits of success will require the commitment of all key participants—educators, school and district leaders, students, families and community members, school boards, policymakers, researchers, advocates, professional learning partners, and teacher preparation programs. Leaders in these domains should initiate conversations that can build a shared vision of the importance of promoting habits of success, based on a growing evidence base that they help students achieve high-priority educational, professional, civic, and personal outcomes.

Build and use the evidence base for habits of success. Considerable evidence already demonstrates the importance of habits of success in achieving high-priority outcomes, but much remains to be learned. Government agencies and foundations should support implementation and outcome research using a range of quantitative and qualitative designs to understand the most effective and efficient promotion and assessment strategies. Schools, districts, and state departments of education should collaborate with research and program partners to share their expertise; provide access to essential people, settings, and data; and enable refinement of strategies over time. To influence practice and policy, the growing evidence

base must be translated and communicated effectively via messages and messengers who are credible and compelling to each group of participants.

A key element of using the evidence base is understanding and acting on a leading theory of change developed from a comprehensive review of the literature. It elevates the importance of fostering positive academic mindsets and effective learning strategies as a way to amplify efforts to build academic perseverance, social skills, and academic behaviors that improve academic performance. All aspects of this process are influenced by student background characteristics and sociocultural, school, and classroom contexts, which therefore must be taken into account to optimize learning.

Develop resources to support promotion and assessment of habits of success. Realizing the shared vision of helping all students build strong habits of success will require expanded availability of and access to high-quality curriculum, instruction, and assessment resources. As with building the evidence base, developing and disseminating these resources will require funding and the collaborative efforts of schools, districts, states, and research and program partners. In addition to outstanding models that already exist, new resources should be developed to provide evidence-based interventions, learning progressions, and assessments for the habits of success that learning communities have chosen to promote.

To enhance adoption and implementation quality, programs should be designed efficiently to recognize the many competing demands on educators and school leaders. Curricular resources should include both direct instruction on habits of success and embedded learning within authentic, project-based learning and performance assessments. To support and monitor student growth, the emphasis should be on formative assessments and developing assessments that are valid, reliable, and fair (in enabling students to show what they know). These assessments should also be used for research and program improvement, and their utility as summative assessments should be explored. Policies and practices should be developed to recognize evidence of growth and mastery from activities that take place anytime and anywhere. Continued development of and access to educational technology resources designed to support this work are essential.

Build a systematic approach to promoting and assessing habits of success. Leadership teams in schools and districts should create an action plan that includes developing goals and timelines in collaboration with professional learning partners. Key elements include assessing current strengths and needs, selecting or creating a habits-of-success framework, identifying implementation resources, developing aligned promotion and assessment strategies that account for cultural and contextual factors, and engaging students and families. Time and resources are essential for educators and school leaders to build capacity and cultural competence, collaborate with colleagues, and reflect on successes and needed changes for continuous improvement.

Expand policies that advance habits of success. State and federal policy should play a role in catalyzing, enabling, and supporting habits of success in K-12 education. Supportive strategies include funding research and development to advance promotion and assessment of habits of success, creating resources to facilitate teacher preparation and professional learning to deepen implementation of strategies to build habits of success, and creating accessible data infrastructure to enable program evaluation and improvement. State policy strategies should also include incorporating habits of success explicitly into curriculum frameworks.

References

1 Aspen Institute. (2018). *From a nation at risk to a nation at hope: Recommendations from the National Commission on Social, Emotional, & Academic Development*. http://nationathope.org/wp-content/uploads/2018_aspen_final-report_full_webversion.pdf

2 Bridgeland, J., Wilhoit, G., Canavero, S., Comer, J., Darling-Hammond, L., Farrington, C., Noguera, P., Shelton, J., Shriver, T., & Wiener, R. (2018). *A policy agenda in support of how learning happens*. Aspen Institute National Commission on Social, Emotional, and Academic Development. http://nationathope.org/wp-content/uploads/aspen_policy_final_withappendices_web_optimized.pdf

3 Levine, E., & Patrick, S. (2019). *What is competency-based education? An updated definition*. Aurora Institute. https://aurora-institute.org/resource/what-is-competency-based-education-an-updated-definition/

4 National Research Council. (2012). *Education for life and work: Developing transferable knowledge and skills in the 21st century*. National Academies Press. https://doi.org/10.17226/13398

5 Battelle for Kids. (2018). P*ortrait of a graduate: A first step in transforming your school system*. Getting started guide for superintendents. http://static.battelleforkids.org/images/pog/PortraitofaGraduate-GettingStartedGuide_Fall2019.pdf

6 Tyner, A. (2021). *How to sell SEL: parents and the politics of social-emotional learning*. Thomas B. Fordham Institute. https://fordhaminstitute.org/sites/default/files/publication/pdfs/20210811-how-sell-sel-parents-and-politics-social-emotional-learning.pdf

7 Farrington, C., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T., Johnson, D., & Beechum, N. (2012). *Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance: A critical literature review*. University of Chicago Consortium on Chicago School Research. https://files.eric.ed.gov/fulltext/ED542543.pdf

8 Science of Learning and Development Alliance. (2019). *How the science of learning and development can transform education. Initial findings*. https://5bde8401-9b54-4c2c-8a0c-569fc1789664.filesusr.com/ugd/eb0b6a_24f761d8a4ec4d7db13084eb2290c588.pdf

9 Darling-Hammond, L., Hernández, L., Schachner, A., Plasencia, S., Cantor, P., Theokas, C., & Tijerina, E. (2021). *Design principles for schools: Putting the science of learning and development into action*. Learning Policy Institute & Turnaround for Children. https://turnaround.ams3.digitaloceanspaces.com/wp-content/uploads/2021/07/23124616/SoLD_Design_Principles_REPORT.pdf

10 Atwood, J., & Childress, S. (2018). *Embracing and measuring an expanded definition of student success*. New Schools Venture Fund. https://www.newschools.org/wp-content/uploads/2018/08/NSVF_080318_EDSS_Insight_Brief_003-rev.pdf

11 Organisation for Economic Co-operation and Development. (2018). *The future of education and skills: Education 2030. The future we want*. https://www.oecd.org/education/2030/E2030%20Position%20Paper%20(05.04.2018).pdf

12 Howell, T. (2021, June 3). Empowering students through the lens of adaptive competencies. *CompetencyWorks*. https://aurora-institute.org/cw_post/empowering-students-through-the-lens-of-adaptive-competencies/

13 reDesign & South Carolina Department of Education. (2020). *Profile of a South Carolina graduate and CASEL competency crosswalk*. https://personalizesc.ed.sc.gov/competencies-based-ed/sc-competencies-prototype/casel-competencies-pscg-competencies-crosswalk/

14 Schaef, S. (2021, May 5). Five big ideas for learner-centered competency framework design. *CompetencyWorks*. https://aurora-institute.org/cw_post/five-big-ideas-for-learner-centered-competency-framework-design/

15 Stafford-Brizard, K.B. (2016). *Building Blocks for Learning: A Framework for Comprehensive Student Development*. Turnaround for Children. https://www.turnaroundusa.org/wp-content/uploads/2016/03/Turnaround-for-Children-Building-Blocks-for-Learningx-2.pdf

16 Summit Public Schools. (2018). *The science of Summit*. https://summitps.org/the-summit-model/the-science-of-summit/

17 New Hampshire Department of Education. (2014). *New Hampshire work-study practices: Rationale for work-study practices*. https://www.education.nh.gov/sites/g/files/ehbemt326/files/inline-documents/2020-04/nhsbea-approved-final.pdf

18 Collaborative for Academic, Social, and Emotional Learning. (2020). *CASEL'S SEL framework: What are the core competence areas and where are they promoted?* https://casel.org/wp-content/uploads/2020/12/CASEL-SEL-Framework-11.2020.pdf

19 Collaborative for Academic, Social, and Emotional Learning. (n.d.). *SEL assessment guide*. https://measuringsel.casel.org/assessment-guide/

20 Collaborative for Academic, Social, and Emotional Learning. (2021). *The CASEL guide to schoolwide SEL essentials, 3rd ed*. https://schoolguide.casel.org/uploads/sites/2/2019/09/2021.6.15_School-Guide-Essentials.pdf

21 Costa, A., & Kallick, B. (Eds.) (2008). *Learning and leading with habits of mind: 16 essential characteristics for success*. ASCD Books.

22 Conley, D. (2012). *A complete definition of college and career readiness*. Educational Psychology Improvement Center. https://files.eric.ed.gov/fulltext/ED537876.pdf

23 Lash, D., & Belfiore, G. (2017). *Visual summary of the MyWays student success series*. Next Generation Learning Challenges. https://s3.amazonaws.com/nglc/resource-files/MyWays_000VisualSummary.pdf

24 British Columbia Ministry of Education. (n.d.). *Core competencies*. https://curriculum.gov.bc.ca/competencies

25 Collaborative for Academic, Social, and Emotional Learning. (n.d.). *Transformative SEL as a lever for equity & social justice*. https://casel.org/research/transformative-sel/.

26 Schaef, S. (2021, May 5).

27 Jagers, R., Rivas-Drake, D., & Borowski, T. (2018). *Equity & social and emotional learning: A cultural analysis*. https://measuringsel.casel.org/wp-content/uploads/2018/11/Frameworks-Equity.pdf

28 Students at the Center Hub. (n.d.). *Scaling up deeper learning: Results from New Hampshire's statewide efforts*. https://studentsatthecenterhub.org/research/innovation-impact-nh-work-study-practices/

29 Vander Els, J., Hume-Howard, E., & Leather, P. (2020, June 2). New Hampshire's work study practices—equity and assessing for growth. *CompetencyWorks*. https://aurora-institute.org/cw_post/new-hampshires-work-study-practices-equity-and-assessing-for-growth/

30 Hammond, Z. (2015). *Culturally responsive teaching and the brain: Promoting authentic engagement and rigor among culturally and linguistically diverse students*. Corwin.

31 Simmons, D. (2021). Why SEL alone is not enough. *Educational Leadership, 78(6)*, 30-34. http://www.ascd.org/publications/educational-leadership/mar21/vol78/num06/Why-SEL-Alone-Isnt-Enough.aspx

32 New York State Education Department. (n.d.). *Culturally responsive-sustaining education framework*. http://www.nysed.gov/common/nysed/files/programs/crs/culturally-responsive-sustaining-education-framework.pdf

33 Soland, J., Hamilton, L., & Stecher, B. (2013). *Measuring 21st century competencies: Guidance for educators*. RAND Corporation. https://asiasociety.org/files/gcen-measuring21cskills.pdf

34 Cantor, P., Lerner, R., Pittman, K., Chase, P., & Gomperts, N. (2021). *Whole-child development, learning, and thriving: A dynamic systems approach*. Cambridge University Press.

35 Lench, S., Fukuda, E., & Anderson, R. (2015). *Essential skills and dispositions: Developmental frameworks for collaboration, creativity, communication, and self-direction*. Center for Innovation in Education. https://www.inflexion.org/essential-skills-and-dispositions-development-frameworks/

36 Vander Els, J., Hume-Howard, E., & Leather, P. (2020, May 26). New Hampshire's work study practices—a five-year journey to understand, share, scale, deepen, and meaningfully assess these critical competencies. *CompetencyWorks*. https://aurora-institute.org/cw_post/new-hampshires-work-study-practices-a-five-year-journey-to-understand-share-scale-deepen-and-meaningfully-assess-these-critical-competencies/

37 Moumoutjis, S. (2021). *Habits of success competencies and continua*. Building 21. Retrieved on August 11, 2021, from https://docs.google.com/spreadsheets/d/17xmn-ZGDnxIFlpeuTNq82CJj9tbxf3orZ7PAe34X7iA/edit#gid=1468680663

38 Building 21. *Competencies for students*. Retrieved on August 11, 2021, from https://building21.org/open-resources/competencies/#competencies

39 Greenstein, L. (2012). *Assessing 21st century skills: A guide to evaluating mastery and authentic learning*. Corwin.

40 Collaborative for Academic, Social, and Emotional Learning. (2020). *CASEL's SEL framework: What are the core competence areas and where are they promoted?* https://casel.org/wp-content/uploads/2020/12/CASEL-SEL-Framework-11.2020.pdf

41 Taylor, J., Buckley, K., Hamilton, L., Stecher, B., Read, L., & Schweig, J. (2018). *Choosing and using SEL competency assessments: What schools and districts need to know.* https://measuringsel.casel.org/pdf/practitioner-guidance.pdf

42 Costa, A., & Kallick, B. (2008).

43 Vander Els, J., Hume-Howard, E., & Leather, P. (2020, May 26).

44 Edwards, J., & Costa, A. (2012). Habits of success. *Educational Leadership, 69(7)*. http://www.ascd.org/publications/educational-leadership/apr12/vol69/num07/Habits-of-Success.aspx

45 Levine, E. (2019, June 4). Habits of mind and learning new ways of learning at Journey Elementary. *CompetencyWorks.* https://aurora-institute.org/cw_post/habits-of-mind-and-learning-new-ways-of-learning-at-journey-elementary/

46 Levine, E. (2019, August 26). Eastern Carver's framework for lifelong learning skills. *CompetencyWorks.* https://aurora-institute.org/cw_post/eastern-carvers-framework-for-lifelong-learning-skills/

47 Levine, E. (2019, April 23). Building a powerful school culture at Four Rivers. *CompetencyWorks.* https://aurora-institute.org/cw_post/building-a-powerful-school-culture-at-four-rivers/

48 Springpoint. (2018). *Designing advisory systems: Innovative approaches from high schools.* https://www.springpointschools.org/blog/2018/10/designing-advisory-systems-innovative-approaches-from-high-schools/

49 Vander Els, J., Hume-Howard, E., & Leather, P. (2020, May 29). Recognizing the critical importance of metacognition. *CompetencyWorks.* https://aurora-institute.org/cw_post/critical-importance-of-metacognition/

50 Levine, E. (2019, July 25). Promoting lifelong learning skills in the classroom: New Hampshire's work study practices. *CompetencyWorks.* https://aurora-institute.org/cw_post/promoting-lifelong-learning-skills-in-the-classroom-new-hampshires-work-study-practices/

51 Vander Els, J., & Benson, S. (2019, July 8). How can students and teachers co-design learning? *Education Week.* https://www.edweek.org/teaching-learning/opinion-how-can-students-and-teachers-co-design-learning/2019/07

52 Center for Assessment. (n.d.). *Assessing 21st century skills resources.* https://www.nciea.org/library/assessing-21st-century-skills-resources

53 Farrington, C., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T., Johnson, D., & Beechum, N. (2012).

54 Jones, S., Brush, K., Ramirez, T., Mao, Z., Marenus, M., Wettje, S., Finney, K., Raisch, N., Podoloff, N., Kahn, J., Barnes, S., Stickle, L., Brion-Meisels, G., McIntyre, J., Cuartas, J., & Bailey, R. (2021). *Navigating SEL from the inside out. Looking inside & across 33 leading SEL programs: A practical resource for schools and OST providers, 2nd ed.* EASEL Lab, Harvard Graduate School of Education. https://www.wallacefoundation.org/knowledge-center/Documents/navigating-social-and-emotional-learning-from-the-inside-out-2ed.pdf

55 Ritchart, R., Church, M., & Morrison, K. (2011). *Making thinking visible: How to promote engagement, understanding, and independence for all learners.* Jossey-Bass.

56 Two Rivers Learning Institute. (n.d.). *Teaching critical thinking and problem-solving: Thinking routines.* https://www.learnwithtworivers.org/teach-thinking-routines.html

57 Two Rivers Learning Institute. (n.d.). *Effective reasoning.* https://www.learnwithtworivers.org/effective-reasoning.html

58 Levine, E. (2019, November 12). Student thinking made visible: Assessing transferable skills with brief performance tasks. *CompetencyWorks.* https://aurora-institute.org/cw_post/student-thinking-made-visible-assessing-transferable-skills-with-brief-performance-tasks/

59 The Institute for Habits of Mind. (n.d.). *Bibliography of student books.* https://www.habitsofmindinstitute.org/resources/bibliography-student-books/

60 Project for Education Research that Scales. (n.d.). *Growth mindset for 9th graders.* https://www.perts.net/orientation/hg

61 Project for Education Research that Scales. (n.d.). *Everything about mindset.* https://www.mindsetkit.org/

62 Westminster Public Schools. (n.d.). *Habits of a personalized learner.* https://www.westminsterpublicschools.org/Page/9103

63 Pellegrino, J., & Hilton, M. (Eds.) (2012). *Education for life and work: Developing transferable knowledge and skills in the 21st century.* National Academies Press. (p. 99). https://hewlett.org/wp-content/uploads/2016/08/Education_for_Life_and_Work.pdf

64 Osher, D., Pittman, K., Young, J., Smith, H., Moroney, D., & Irby, M. (2020). *Thriving, robust equity, and transformative learning & development: A more powerful conceptualization of the contributors to youth success*. American Institutes for Research & Forum for Youth Investment. https://forumfyi.org/wp-content/uploads/2020/07/Thriving.Equity.Learning.Report.pdf

65 Lenz, B., Wells, J., & Kingston, S. (2015). *Transforming schools using project-based learning, performance assessment, and common core standards*. Jossey-Bass.

66 EL Education. (n.d.). *Library: Videos, guidance documents, protocols, and more*. https://eleducation.org/resources/library?typeCategory=models-from-schools

67 EL Education. (2018). *Core Practices: A Vision for Improving Schools*. https://eleducation.org/resources/core-practices-updated

68 Berger, R., Rugen, L., & Woodfin, L. (2014). *Leaders of their own learning: Transforming schools through student-engaged assessment*. Jossey-Bass.

69 Lucas Education Research. (n.d.). *Sprocket*. https://sprocket.lucasedresearch.org/

70 Lucas Education Research. (2021). *The evidence is clear: Rigorous project-based learning is an effective lever for student success*. George Lucas Education Foundation. https://www.lucasedresearch.org/wp-content/uploads/2021/04/Research-Summary-of-PBL-Rev1-1.pdf

71 Evans, C. (2020, June 18). Instructing & assessing 21st century skills: A focus on collaboration. *Center for Assessment*. https://www.nciea.org/blog/educational-assessment/instructing-assessing-21st-century-skills-focus-collaboration

72 Brandt, C. (2020, July 2). Instructing & assessing 21st century skills: A focus on self-directed learning. *Center for Assessment*. https://www.nciea.org/blog/educational-assessment/instructing-assessing-21st-century-skills-focus-self-directed-learning

73 Thompson, J. (2020, June 25). Instructing & assessing 21st century skills: A focus on complex communication. *Center for Assessment*. https://www.nciea.org/blog/educational-assessment/instructing-assessing-21st-century-skills-focus-complex-communication

74 Levine, E. (2019, March 13). Mixed signals from report cards: Learning Heroes report highlights why competency-based grading matters. *CompetencyWorks*. https://aurora-institute.org/cw_post/mixed-signals-from-report-cards-learning-heroes-report-highlights-why-competency-based-grading-matters/

75 New Hampshire Learning Initiative. *NHLI project: Social studies: Work study practices*. https://nhlearninginitiative.libguides.com/c.php?g=878236&p=6307801 (Although the title of the web page says "social studies," the rubrics are more broadly applicable.)

76 Building Essential Skill Today Research-Practice Partnership. (n.d.). *BEST self-direction toolkit, version 1.0*. https://www.best-future.org/wp-content/uploads/2020/10/BEST%20Self-Direction%20Toolkit-v1.pdf

77 Levine, E. (2021, August 12). Building Habits of Success with the BEST Self-Direction Toolkit. *CompetencyWorks*. https://aurora-institute.org/cw_post/building-habits-of-success-with-the-best-self-direction-toolkit/

78 Two Rivers Learning Institute. (n.d.). *Assessing critical thinking and problem-solving: Performance tasks*. https://www.learnwithtworivers.org/assess-performance-tasks.html

79 Two Rivers Learning Institute. (n.d.). *Two Rivers reasoning task, grades 4-5*. https://drive.google.com/file/d/0B7OvT1oXWUULQll1MEMxQoxhcTQ/view

80 Levine, E. (2019, November 12).

81 Levine, E. (2002). *One kid at a time: Big lessons from a small school*. Teachers College Press.

82 British Columbia Ministry of Education. (n.d.). *Social awareness and responsibility*. https://curriculum.gov.bc.ca/competencies/personal-and-social/social-awareness-and-responsibility (The lists of Illustrations begin in French. To find English versions, scroll down.)

83 Envision Learning Partners. (n.d.). *Performance assessment: Show what you know and make it public*. https://www.envisionlearning.org/performance-assessment

84 Envision Learning Partners. (n.d.). *Envision Learning resource bank*. https://www.envisionlearning.org/resource-bank

85 Stanford Center for Assessment, Learning, & Equity. (n.d.). *Performance assessment quality rubric*. https://iowacore.gov/sites/default/files/scaleperformanceassessmentqualityrubric.pdf

86 Performance Assessment Project. (n.d.). *Performance assessment resource bank*. https://www.performanceassessmentresourcebank.org/

87 Levine, E. (2019, August 26).

88 Levine, E. (2019, July 25).

89 Surrey Public Schools. (n.d.). *Surrey Schools leadership in learning: Self-assessment of core competencies, elementary*. https://www.surreyschools.ca/csl/Documents/SD36CoreCompetencies-ELEMENTARY.pdf

90 Feldman, J. (2019). *Grading for equity: What it is, why it matters, and how it can transform classrooms and schools*. Corwin.

91 Berger, R., Rugen, L., & Woodfin, L. (2014). (p. 138).

92 Kallick, B., & Zmuda, A. (2017). *Students at the center: Personalizing learning with habits of mind*. ASCD.

93 Collaborative for Academic, Social, and Emotional Learning. (n.d.). *SEL assessment guide*.

94 New Hampshire Learning Initiative. (n.d.). *Work study practices assessment for deeper learning*. (Slide 4). https://nhlearninginitiative.libguides.com/ld.php?content_id=45375211

95 Sturgis, C. (2017). Red flag: When habits of work and learning become extrinsic motivation. *CompetencyWorks*. https://aurora-institute.org/cw_post/red-flag-when-habits-of-work-and-learning-become-extrinsic-motivation/

96 Feldman, J. (2019), p. 208.

97 Vander Els, J., Hume-Howard, E., & Leather, P. (2020, June 2).

98 Vander Els, J., Hume-Howard, E., & Leather, P. (2020, May 29).

99 Duckworth, A., & Yeager, S. (2015). Measurement matters: Assessing personal qualities other than cognitive ability for educational purposes. *Educational Researcher, 44(4)*, 237-251. https://doi.org/10.3102/0013189X15584327

100 National Research Council. (2012).

101 Colby, R. (2017). *Competency-based education: A new architecture for K-12 schooling*. Harvard Education Press.

102 Evans, C., Thompson, J., & Brandt, C. (2020, July 16). Instructing & assessing 21st century skills: Key measurement & assessment considerations. *Center for Assessment*. https://www.nciea.org/blog/educational-assessment/instructing-assessing-21st-century-skills-key-measurement-assessment

103 Marion, S., & Evans, C. (2018, September 6). How much is enough? Sufficiency considerations for competency-based assessment systems. *Center for Assessment*. https://www.nciea.org/blog/assessment/how-much-enough

104 Mastery Transcript Consortium. (2021). *Key features of the MTC Mastery Transcript*. Retrieved on September 9, 2021, from https://mastery.org/what-we-do/mastery-transcript/

105 Big Picture Education Australia. (n.d.). *What is the International Big Picture Learning Credential?* https://www.bigpicture.org.au/what-international-big-picture-learning-credential

106 Casey, K. (2018). *Moving toward mastery: Growing, developing, and sustaining educators for competency-based education*. iNACOL. https://aurora-institute.org/resource/moving-toward-mastery-growing-developing-and-sustaining-educators-for-competency-based-education/

107 Vander Els, J., Hume-Howard, E., & Leather, P. (2020, May 26).

108 Edwards, J., & Costa, A. (2012).

109 Battelle for Kids. (n.d.). *Portrait of an educator*. https://www.battelleforkids.org/portraitofaneducator/landing

110 Hampton City Schools. (n.d.). *Portrait of a Hampton educator*. http://sheriff.sbo.hampton.k12.va.us/information/Portrait%20of%20an%20Educator10-05.pdf

111 Collaborative for Academic, Social, and Emotional Learning. (2021).

112 Hess, K., Colby, R., & Joseph, D. (2020). *Deeper competency-based learning: Making equitable, student-centered, sustainable shifts*. Corwin. (p. 63).

113 2Revolutions. (n.d.). *Broader definition of success learning progression*. https://getinspired.2revolutions.net/themes/inspired/images/welcome/Broader_Definition_of_Success_Learning_Progression.pdf?v2.2.12

114 Turnaround for Children. (2021). *Whole-child design inventory*. https://turnaroundusa.org/toolbox/measurement/wcdi/

115 Turnaround for Children. (2021). *Whole-child design blueprint*. https://turnaroundusa.org/toolbox/wcdesign/

116 2Revolutions. (n.d.). *Broader definition of success*. https://www.2revolutions.net/broader-definition-of-success

117 PBLWorks. *Workshops, courses, and programs*. Retrieved August 11, 2021, from https://www.pblworks.org/services-overview

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