EAB

Student Success Milestones

District Leadership Forum

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1) How to Use this Resource

Resource Guide

As federal regulations and state regulations continue to emphasize student outcomes as measures of school district effectiveness, district administrators increasingly need to identify and eliminate barriers to student postsecondary success. Specifically, district administrators seek key student success milestones (i.e., performance indicators) throughout grades K-12 that indicate whether a student is on track to reach college and career success. Districts can then track whether students achieve these milestones and develop targeted initiatives to reach students who fall behind.

This resource synthesizes research from multiple sources to identify student success milestones in three categories.

- **Academic and Career Milestones**: This section profiles evidence-based success milestones related to student academic achievement and career preparation. These milestones are the most common milestones used by districts to track student progress toward postsecondary success, and much of the research on milestones focuses academic and career achievements specifically. This section also profiles how exemplar nonprofits and districts prioritize specific, actionable metrics and develop associated assessment and intervention techniques.

- **Social and Emotional Learning (SEL) Milestones**: Though emerging research focuses heavily on the connection between SEL skills and postsecondary success, researchers have not yet come to a consensus on specific SEL milestones and strategies to measure progress toward these milestones. This section explores preliminary frameworks that attempt to profile how SEL skills develop over time and suggests emerging SEL assessment techniques.

- **Critical Thinking and Creativity Milestones**: Districts increasingly seek to teach skills linked to success in 21st century workplaces, including critical thinking, creativity, and leadership. Though research has not yet identified critical milestones for these "21st Century Skills," this section profiles how two exemplar districts develop rubrics to outline how 21st century skills develop across grade levels. The section also describes how these districts use performance tasks to assess students' ability to think critically and solve problems creatively.

District administrators should use this resource to select five to seven priority student success milestones and identify associated assessment techniques (see district milestone initiative examples on **page 10**). Administrators should assess student progress toward these milestones on an annual basis and develop initiatives targeted to students who are on track to miss the milestones. Administrators should consider implementing some SEL and 21st Century Skill milestones but may wish to prioritize academic and career milestones due to their stronger research base and ease of assessment.

2) Academic and Career Milestones

Milestone Research

Extensive Research Identifies Numerous Success Indicators, Particularly in Later Grades

Researchers at the College & Career Readiness and Success Center—part of the American Institutes for Research—conducted a comprehensive literature review to identify student skills, behaviors, and characteristics that predict future academic attainment and economic security.[1] Researchers separate these characteristics into three categories:

1. **Indicators**: These measures correspond to an established numerical threshold. If students meet or exceed this threshold (i.e., 3.0 GPA in high school), they are more likely to be prepared for college and career. Because it is more difficult to connect early childhood and elementary school behaviors to postsecondary success many years later, indicators are more common at higher levels of education.

2. **Predictors**: These measures are strongly correlated with positive postsecondary outcomes but do not possess an associated numeric threshold (e.g., teacher ratings of student participation).

3. **Potential Factors**: Research identifies these skills and attributes as important to student success but has not yet established reliable measures (e.g., social and emotional learning (SEL)).

Success Indicators by Academic Level[2]

Early Education

Predictors	Potential Factors
• Participation in childcare and early education • Early approaches to learning • Positive **school readiness risk profile**	• Cognitive understanding and control • Positive play interaction behaviors • Emergent literacy • Working memory skills • SEL • Attention span persistence

> Researchers at American Institutes for Research did not identify any indicators at the early education level

Elementary School

Indicators	Predictors	Potential Factors
• Reading by the 3rd grade • Less than 10 percent absenteeism in elementary school	• High teacher ratings on attention span and classroom participation • High scores on the **Social Skills Rating System**	• Social competence

> For more information on the critical literacy milestone of third grade reading, see EAB's **Narrowing the Third Grade Reading Gap Research Brief**.

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1) Vanessa Hein, Becky Smerdon, Quil Research Associates, LLC, and Megan Sambolt, "Predictors of Postsecondary Success," *College & Career Readiness & Success Center at American institutes for Research,* November 2013, 2.
https://ccrscenter.org/sites/default/files/CCRS%20Center_Predictors%20of%20Postsecondary%20Success_final_0.pdf

2) Ibid., 3-9.

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Middle School

Indicators	Predictors	Potential Factors

• Less than 20 percent absenteeism
• Remaining at the same school
• No unsatisfactory behavior grades in sixth grade
• Passing all English language arts (ELA) and math courses and meeting benchmarks on state exams
• Passing Algebra I in 8th grade
• **NAEP** math score of > 292 in 8th grade
• Standardized test score benchmarks:
  – SAT-9: Greater than 50th percentile
  – ACT: English 12, Math 17, Science 20
	• Taking rigorous coursework during middle grades
	• High scores on **Grit-S and Grit-O scales**
		• SEL and decision-making skills

High School

Indicators	Predictors	Potential Factors

• Less than 10 percent absenteeism
• No more than one failed course in 9th grade
• Completing higher-level math sequence (e.g., Algebra II, Geometry, Algebra III, Precalculus/Calculus).
• 3.0+ high school GPA
• 3+ on Advanced Placement (AP) exam, 4+ on International Baccalaureate (IB) exam
• Dual enrollment participation
• Passing scores on state exams
• National Assessment Benchmarks:
  – 10th grade **NELS** Scale Score >54
  – 12th grade NAEP Score > 320
  – 12th grade **ELCS** Score > 141
• College preparatory exam benchmarks:
  – SAT: >1550 (2013 scoring system)
  – **PLAN**: English 15, Reading 17, Math 19, Science 21
  – ACT: English 18, Mathematics 22, Reading 21, Science 24
• Participation in transition programs (e.g., summer bridge program, senior-year transition courses)
• Early assessment and intervention programs
• Multi-year college readiness programs, embedded college counseling, and college-readiness lessons
	• Few school transfers between grades
	• **Early Assessment Program** and PSAT completion
		• Participation in SEL intervention
		• Workplace skills (e.g., **National Work Readiness Credential**)
		• Meeting with academic advisor
		• Skills certification system

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Non-Profits and Professional Associations Synthesize Success Milestone Research into Actionable Frameworks

The *Redefining Ready* initiative from the School Superintendents Association attempts to add structure to high school success indicators by organizing them into three categories: college-ready, career-ready, and life-ready. Initiative researchers also developed specific readiness stipulations for each category.[3] Many of the success indicators outlined in *Redefining Ready* align with the American Institutes of Research literature review cited above.

Redefining Ready Student Success Indicators[4]

Redefining Ready also identifies factors that contribute to college success, including A, B, and C grades; FAFSA completion; career pathway course sequences, college academic advising, college-bound bridge programs, senior year math class, and completion of a math class after Algebra II.

A+

College-Ready

Students are considered college ready if they meet either academic requirements or standardized testing benchmarks.

Academic Requirements

GPA: 2.8 out of 3.0 and one more of the following indicators:

- Score of 3+ on AP exam
- A, B, or C grade in advanced placement course.
- A, B, or C grade in dual-credit college English and/or Math
- A, B, or C grade in College Developmental/Remedial English and/or Math.
- A, B, or C grade in Algebra II
- 4+ score on IB exam

Standardized Testing Benchmarks Minimum Score

- SAT Exam: Math (530); Reading and Writing (480)
- ACT Exam: English (18); Reading (22); Science (23); Math (22)
- College Readiness Placement Assessment (score determined by postsecondary institution)

Career-Ready

Students are considered career ready if they identify a career interest and meet two or more behavioral and experiential benchmarks.

Behavioral and Experiential Benchmarks

- 90 percent attendance
- 25 hours of community service
- Workplace learning experience
- Industry credential
- Dual-credit career pathway course
- Two or more organized co-curricular activities

Redefining Ready researchers clarify that little research on how to measure life-ready skills currently exists but note that the campaign is currently studying potential measures.

Life-Ready

Students are considered life ready if they leave high school with the grit and perseverance to track and achieve their goals by demonstrating personal actualization skills of self-awareness, self-management, social-awareness, responsible decision making, and relationship skills.

Life-Ready Requirements

- Students possess a growth mindset
- Schools provide SEL support and experiences

Other nonprofits reduce the wide variety of success milestones to fewer, critical success milestones to help districts prioritize specific indicators. For example, *Generation Next* identifies six critical milestones that determine future success and developed targeted initiatives accordingly.[5] Though district-led initiatives may differ substantially, districts should still consider developing dedicated interventions aimed at improving student progress toward high-priority student success milestones.

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3) "2017 Annual Report," *Redefining Ready,* 2017. https://www.redefiningready.org/
4) Ibid.; "Life Ready," Redefining Ready, accessed September 18, 2019. https://www.redefiningready.org/life-ready
5) "Our Goals," Generation Next," accessed September 19, 2019. https://gennextmsp.org/our-goals/

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Generation Next Success Milestone Interventions[6]

Kindergarten Readiness

Every child enters kindergarten with the literacy, social, and emotional strengths needed for successful learning.

Kindergarten readiness skills include academic skills (e.g., letter and number recognition, verbal skills, language complexity) and social skills (e.g., empathy, cooperation).

Example Interventions

- *Generation Next* worked to improve the quality of licensed family childcare across cultural groups and linguistic barriers.
- *Generation Next* developed a text-based parent engagement program that offers developmentally appropriate advice to help parents support their children.
- *Generation Next* created an improved early childhood screening system for children aged three years.

Early Grade Reading

Every child meets reading proficiency benchmarks in 3rd grade

Research suggests that if children are behind in reading by third grade, they generally remain behind as reading requirements grow in complexity.

Example Interventions

- *Generation Next* helped create a targeted literacy-tutoring network aimed at reducing achievement gaps in reading outcomes.
- *Generation Next* helped develop volunteer literacy tutor training and recruitment.

Middle School Math

By the end of eighth grade, each student is on track to meet math success benchmarks

Students who complete Algebra 1 in eighth grade are more likely to stay in the mathematics pipeline and attend college at higher rates.

Example Interventions

- *Generation Next* collaborated with the University of Minnesota to develop the GopherMath Project, which focuses on helping elementary schoolers to comprehend fractions, decimals, and percentages. Research suggests that rational number comprehension correlates with middle school math proficiency.

Social-Emotional Learning

By the end of eighth grade, every child is socially and emotionally equipped to learn.

Research from the University of Minnesota highlighted four specific social-emotional skills: commitment to learning, positive identity, social competence, and academic persistence.

Example Interventions

- *Generation Next* collaborated with Minneapolis Public Schools, the Department of Education, and the Search Institute to develop measures for critical social-emotional skills.
- *Generation Next* collaborated with CASEL to expand social-emotional instruction in area schools.

High School Graduation

Each student graduates from high school ready for college and career.

High school graduation is a precursor to college enrollment and an indicator for earnings throughout adulthood.

Example interventions

- *Generation Next* developed a data-analysis protocol to identify ninth grade students at risk of falling off track to graduate based on course grades, absences, and suspensions.
- *Generation Next* expanded college and career-readiness networks.

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6) "Our Goals," Generation Next," accessed September 19, 2019. https://gennextmsp.org/our-goals/

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Every high school graduate earns a post-secondary degree or certification.

Large disparities in college access exist among high income and low-income students.

Interventions

- *Generation Next* supported guided pathway programs to improve student success in advanced courses.
- *Generation Next* supported expanded access to dual enrollment.

District Milestones

Identify Priority Success Milestones and Associated Assessment Techniques

Rather than seek to improve student performance on all above student success milestones, districts who conduct student success milestone initiatives identify five to seven priority success milestones and focus their efforts on improving student performance in those areas specifically.

Across K-12 institutions, priority milestones focus on early-grade reading performance, middle-grade math performance, and success in advanced coursework. Milestone initiatives focus predominantly on academic milestones, but some initiatives incorporate student engagement metrics, co-curricular activity participation, and/or community service.

Example Student Success Milestone Initiatives[7]

Mequon-Thiensville School District

1 Reading to instructional level in K-2nd grade

Students can read without additional support as measured by the **Fountas and Pinnell Text Level Gradient**

2 Reading scores (3rd to 8th grade)

Students score at or above the 66th percentile at grade-level on **Measure of Academic Progress (MAP)** tests

3 Math scores (3rd to 8th grade)

Student score at or above the 7th percentile at grade level on MAP tests

4 ACT benchmark attainment (8th-11th grade)

Students meet or exceed the ACT benchmarks in English, Math, Reading, and Science

5 Algebra II Success

Students complete Algebra II by 10th grade with a grade of C or higher to access more advanced coursework

6 Success in advanced coursework (9th-12th Grade)

Students score a 3 or better on AP exams or attain a B or better in dual credit courses

7 Student engagement (4th-12th grade)

Students report an average level of engagement greater than or equal to 3.0/4.0 on an annual student engagement survey that measures connectedness, drive, leadership, social and emotional aptitude, and wellness.

The current **ACT College Readiness Benchmarks** are the following:
- English: 18
- Mathematics: 22
- Reading: 22
- Science: 23

Portland Public Schools

1 Enter 1st grade: Ready to read

Students recognize letter names and sounds and parts of words.

2 End of 3rd grade: Reading to learn

Students exceed the benchmark on the state reading test

3 Middle Years: Ready for high school
- Student attendance is 90 percent or greater
- Students meet the benchmark on the state writing test
- Students take and pass eighth grade algebra

4 Enter 10th grade: On track to graduate

Students complete 9th grade with six credits and a C grade in core subjects

5 12th Grade: Graduating on time and ready for work and college
- Students graduate on time
- Students meet college-ready benchmark on at least three ACT tests

▶ Other K-12 Milestone Initiatives

- **Manitowoc Public School District**
- **Kamehameha Schools**
- **Massachusetts Early Warning Indicators**

7) "Milestones for College and Career Success," Mequon Thiensville School District, accessed September 19, 2019. https://www.mtsd.k12.wi.us/teaching-learning/academics/milestones; "Measuring Results: The Milestones Framework," Portland Public Schools, accessed September 19, 2019. http://www.pps.k12.or.us/depts/communications/ppsreport09/pagethree.html

3) SEL Milestones

SEL Frameworks

Adopt Grade-Level SEL Competency Frameworks Developed by Researchers That Consider Developmental Shifts

CASEL identifies five core SEL competencies that aim to define the various skills associated with strong SEL performance: self-awareness, self-management, social-awareness, relationship skills, and responsible decision making. *CASEL* also breaks these competencies down into specific subskills. For example, self-management includes impulse control, stress management, self-discipline, self-motivation, goal-setting, and organizational skills.[8] *CASEL* has not yet endorsed an assessment to assess the development of these competencies in each grade-level.

Multiple other research organizations have developed SEL competency frameworks that account for differences in age and developmental stage. According to *Measuring SEL*—a collaborative of researchers from *CASEL*, the *RAND Corporation*, Harvard University, and other education research groups— administrators should ensure that the district's approach to SEL is developmentally appropriate by "implementing frameworks that are age-appropriate, clearly indicate how competencies develop over time (i.e., developmental sequence), and offer implementation supports that attend to development."[9] Researchers from *Measuring SEL* offer the following view of how competencies and associated measures shift across grade-levels.

SEL Competencies and Assessments for Elementary, Middle, and High School Students[10]

Elementary Grades	Middle School Grades	High School Grades
Student competencies	**Student competencies**	**Student Competencies**
• Growth in abilities to self-reflect and self-regulate	• Continued growth in self-regulation, interpersonal knowledge and skills, and metacognition	• Continued development of mindsets
• Emergence of metacognition	• Emergent sense of group identity due to peer relationships	• Knowledge of self and differentiation from others
• Feelings of empathy and perspective-taking skills	• Emergence of mindsets (e.g., growth mindset)	• Emergent sense of values and linked skills (e.g., responsible decision-making)
Assessment Strategies	**Assessment Strategies**	**Assessment Strategies**
• Ratings and observations by teachers and adults	• Student self-reports and student interviews	• Student self-reports
• Student self-reports (i.e., student surveys in which students rate their own performance) in 4th and 5th grade	• Observations and rubric assessments of group project performance	• Interviews become increasingly valuable to help students demonstrate breadth and depth of knowledge
		• Observations and rubric assessments of group performance

8) "Core SEL Competencies," CASEL, accessed September 19, 2019, https://casel.org/core-competencies/
9) Jeremy Taylor, Katie Buckley, Laura S. Hamilton, Brian M. Stecher, Lindsay Read, and Jonathan Schweig, "Choosing and Using SEL Competency Frameworks," *Measuring SEL*, November 2018, 8. http://measuringsel.casel.org/pdf/Choosing-and-Using-SEL-Competency-Assessments_What-Schools-and-Districts-Need-to-Know.pdf
10) Ibid, 9-10.

An example SEL framework that aligns with developmental milestones is the Foundations for Young Adult Success framework, developed by the University of Chicago Consortium on School Research. The framework first identifies four foundational components of success:[11]

- **Self-regulation**: "Awareness of oneself and one's surroundings and the ability to manage one's attention, emotions, and behaviors in goal-directed ways."

- **Knowledge and Skills**: "Knowledge is sets of facts, information, or understanding about self, others, and the world. Skills are the learned ability to carry out a task with intended results or goals and can be either general or domain-specific."

- **Mindsets**: "Beliefs and attitudes about oneself, the world, and the interaction between the two. [Mindsets] are the lenses [one] uses to process everyday experience."

- **Values**: "Enduring, often culturally-defined, beliefs about what is good or bad and what is important in life. Values serve as broad guidelines for living and provide an orientation for one's desired future."

The framework then highlights three key factors that determine success. According to the framework, "being successful means having the **Agency** to make active choices about one's life path, possessing the **Competencies** to adapt to the demands of different contexts, and incorporating different aspects of oneself into an **Integrated Identity**."[12] According to the framework, children begin by developing foundational components, which then lead to the emergence of the key factors in middle adolescence and young adulthood.

Development of Foundational Components and Key Factors by Age-Level in the *Foundations for Young Adult Success Framework*
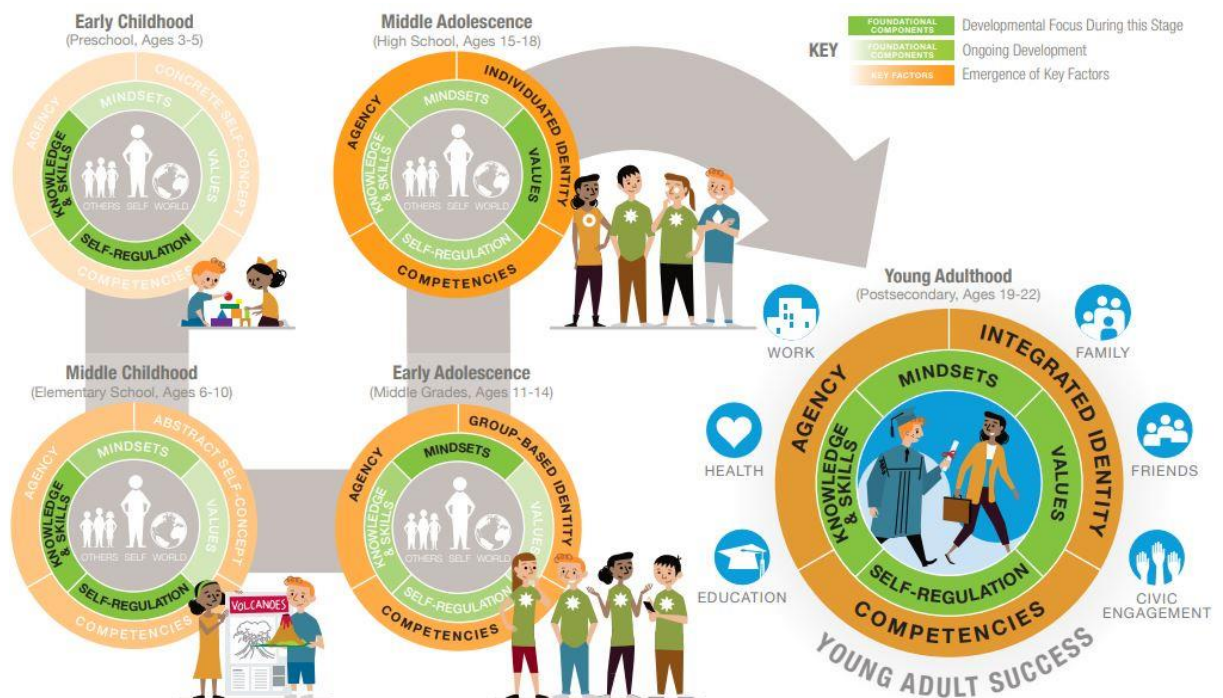
Source: "Foundations for Young Adult Success: A Developmental Framework," University of Chicago Consortium on School Research, 2015. https://consortium.uchicago.edu/sites/default/files/2019-01/Wallace-Infographic.pdf

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11) "Foundations for Young Adult Success: A Developmental Framework," University of Chicago Consortium on School Research, 2015, https://consortium.uchicago.edu/sites/default/files/2019-01/Wallace-Infographic.pdf
12) Ibid.

Use External Guides to Assess and Select Evidence-Based SEL Frameworks

Measuring SEL establishes a process to select an SEL Framework in the research brief **Ten Criteria for Describing and Selecting SEL Frameworks**. The organization also published executive reviews of nine common SEL frameworks, accessible **here**.

SEL Measurement

Researchers Have Not Yet Reached a Consensus on How to Measure Social and Emotional Learning

According to research conducted by the Association for Supervision and Curriculum Development and the Rennie Center for Education Research and Policy, SEL measurement and assessment is at an early but promising stage.[13] The researchers report that the current most commonly used measures of SEL skills are student surveys and teacher reports on student skills.

Though both measures are subject to biases, the report cites research from California's CORE Districts that suggests that student and teacher measures of SEL skills are "significant predictors of important academic and behavioral outcomes, such as GPA, test scores, attendance, and suspensions."[14]

Common Measures of SEL Skills[15]

Student and Teacher Reports	Behavioral Proxies	Dedicated Assessments
• Student surveys and teacher reports of student skills are the most common current measure of SEL skills. • Though critics note that surveys may incorporate bias, recent research from California's CORE Districts suggest that teacher and student surveys can be effective.	• Some districts use school climate proxy measures to assess SEL skills across their student body. • Proxy measures include absenteeism, suspension, disciplinary actions, truancy, and dropout rates. • These measures can help assess student engagement but cannot assess specific SEL skills and competencies.	• Researchers note that skill-based performance tasks and game-based assessments may soon emerge to better assess SEL skills. • Researchers have already developed some assessments to assess SEL skills (e.g., **PISA teamwork/problem-solving performance task**).

To learn more about SEL measures at the CORE districts, consult **this research report** from PACE (Policy Analysis for California Education).

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13) Simone Fried, "Social and Emotional Learning: Opportunities for Massachusetts, Lessons for the Nation," *ASCD* and *Rennie Center for Education Research and Policy*, November 2015, 13. http://www.ascd.org/ASCD/pdf/siteASCD/policy/SEL_PolicyBrief_Final_11-16-15.pdf
14) Ibid., 14.
15) Ibid., 13-14.

Use Preexisting Compendia to Identify Specific SEL Assessments

Multiple research groups have compiled lists of assessments related to SEL.

- **RAND**: This tool allows district administrators to search a series of assessments related to interpersonal, intrapersonal, and higher-order cognitive competencies. It also allows administrators to sort by competencies, grade-level, and numerous other factors. Lastly, the tool offers a "Compare" function to quickly identify differences between related assessments.
- **CASEL**: This compendium identifies multiple SEL assessment measures for preschool and elementary school students.
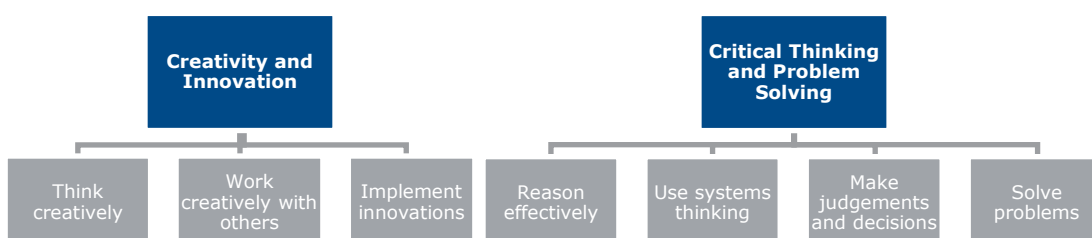
4) Critical Thinking and Creativity Milestones

21st Century Skills

Consider Implementing External Curricula/Frameworks to Teach and Measure Critical Thinking

To identify and measure success milestones associated with critical thinking and creativity, district administrators must first endorse a clear definition of the skills associated with these more nebulous terms. Harvard University's Explore SEL Project includes a comparison tool that allows educators to compare common "non-academic" frameworks based on the skills that they aim to instill in students. Of the 16 reviewed frameworks, the tool highlights the 21st Century Learning (P21) framework as a framework with a strong focus on critical thinking and cognitive flexibility.[16] The P21 framework contains specific skills related to "Creativity and Innovation" and "Critical Thinking and Problem Solving."[17]

Critical Thinking and Creativity Components of the P21 Framework[18]

Though the P21 framework began with 18 skills, educational leaders reduced the framework into four critical skills (i.e., the four C's): critical thinking, communication, collaboration, and creativity. Leaders developed this simplified structure to ease the implementation process at educational institutions.[19] Based on these four critical skills, **Catalina Foothills School District** and **Virginia Beach City Public Schools** developed specific rubrics and/or assessments to measure student performance.

At Catalina Foothills School District, administrators and teachers used backward design to create a series of rubrics to measure student performance on 21st century skills.[20] Administrators ask teachers to develop assessments within academic units that align with the skills highlighted on the rubric. To enable teachers to assess their students against standards that align with student development, administrators created separate rubrics for grades K-2, 3-5, 6-8, and 9-12.[21] Teachers can use the rubrics to rank students at four levels: Novice, Basic, Proficient, and Advanced.

16) "Identify Related Skills Across Frameworks," Harvard University, accessed September 23, 2019. http://exploresel.gse.harvard.edu/compare-terms/
17) "21st Century Learning (P21)," Harvard University, accessed September 23, 2019. http://exploresel.gse.harvard.edu/frameworks/3/
18) Ibid.
19) "An Educator's Guide to the "Four C's," *National Education Association*, 2010, http://www.nea.org/assets/docs/A-Guide-to-Four-Cs.pdf
20) "Envision 21 Deep Learning," Catalina Foothills School District, accessed September 23, 2019. https://www.cfsd16.org/academics/resources-for-deep-learning
21) "Critical Thinking and Problem Solving Rubrics," Catalina Foothills School District, accessed September 23, 2019. https://www.cfsd16.org/application/files/9115/3127/8768/K-12_CRITICAL_THINKING_AND_PROBLEM_SOLVING_2018.pdf

Sample Grades 6-8 Critical Thinking Rubric at *Catalina Foothills School District*[22]

Performance Area	1.0 (Novice)	2.0 (Basic)	3.0 (Proficient)	4.0 (Advanced)
Inquiry: Information and Discovery	Framing the Investigation: • Identifies a topic and purpose for investigation • Defines "cognitive bias"	Framing the Investigation: • Describes aspects of the topic under investigation (e.g., context, stakeholders) • Acknowledges own general biases	Framing the Investigation: • Identifies relationships among aspects of the topic under investigation, describing them as interrelated elements rather than isolated pieces • Acknowledges own biases about the task or topic under investigation	Framing the Investigation: • Defines the topic under investigation by examining it through various lenses or perspectives • Explain how own biases might influence the investigation

Each rating also contains—in addition to "Framing the Investigation"— criteria for "Questioning," "Information Gathering," and "Source Evaluation."

Assessment

Use Performance-Based Assessments to Evaluate Critical Thinking and Creativity

Educators at **Catalina Foothills School District** developed specific, performance-based tasks to assess student performance based on the district's 21st century skill rubrics. These tasks ask students to "analyze and solve problems, make claims and support them with source-based evidence, and reason effectively."[23] An assessment team of teachers at the district created tools and templates based on the College and Work Readiness Assessment performance task. Next, other teams of teachers at the district use these tools to develop their own common performance assessments.[24]

Because Catalina Foothills School District developed rubrics that define different levels of mastery for each skill based on grade level, teachers can thus develop separate performance tasks for elementary grades, middle grades, and high school grades. Administrators could—if desired—use student performance on these differentiated assessments to establish success milestones for different grade levels.

Teachers use the following checklist to create effective performance tasks.

Performance Task Checklist at *Catalina Foothills School District*[25]

1 Identify an issue or problem.

2 Create a scenario or context that places the student in an authentic/real-world situation.

3 Give the student a specific role.

4 Include a decision to be made or a problem to solve.

22) "Critical Thinking and Problem Solving Rubrics," Catalina Foothills School District, accessed September 23, 2019. https://www.cfsd16.org/application/files/9115/3127/8768/K-12_CRITICAL_THINKING_AND_PROBLEM_SOLVING_2018.pdf
23) "Outcome Data: How is the Catalina Foothills School District Succeeding as a 21st Century Learning Environment?" Catalina Foothills School District, accessed September 23, 2019, 1. https://www.cfsd16.org/application/files/3114/7832/1939/Outcome_Data-How_is_CFSD_Succeeding_RF.pdf
24) Ibid., 2.
25) Ibid.

5	Require understanding and transfer of learning.
6	Identify an authentic project that someone assuming the role would produce (the student will produce this product).
7	Include appropriate stakes to add urgency.
8	Include appropriate opposition to make it compelling.
9	Create a task library (set of documents) that includes a range of information sources (students will use these documents to respond to the problem or issue).
10	Require students to engage in critical thinking, problem solving, and communication (or similar 21st century skills) in order to arrive at a solution or make a decision.
11	Create transparent evaluation criteria and rubrics that are made clear to the students so they can evaluate their work and receive feedback on strengths and weakness.

Use External Performance Tasks to Corroborate Effectiveness of District Common Assessments

Administrators could use mastery levels on the CWRA to define priority milestones for high school students.

At **Catalina Foothills School District**, students complete the **College and Work Readiness Assessment (CWRA)** from the Council for Aid to Education. In this assessment, students synthesize information from a variety of sources to respond to a complex problem. Students also complete 25 response questions that measures specific reasoning skills. District administrators use this assessment to provide a longitudinal measure of student performance on 21st century skills.[26]

At **Virginia Beach City Public Schools**, administrators also use performance-based tasks to assess student performance on 21st century skills.[27] The district collaborated with leaders at Harvard University's Change Leadership Group to create customized Integrated Performance Tasks, which they also designed based on the CWRA.[28]

At the district, students complete integrated performance tasks in grades four and seven.[29] For example, in seventh grade, students use a news story with a graph, an advertisement, a research brief, and a social media site with comments to make a decision regarding a mall chaperone policy.[30]

26) "Outcome Data: How is the Catalina Foothills School District Succeeding as a 21st Century Learning Environment?" Catalina Foothills School District, accessed September 23, 2019, 2. https://www.cfsd16.org/application/files/3114/7832/1939/Outcome_Data-How_is_CFSD_Succeeding_RF.pdf
27) "Integrated Performance Task (IPT)," Virginia Beach City Public Schools, accessed September 23, 2019. https://www.vbschools.com/students/testing_information/integrated_performance_task_ipt
28) Douglas G. Wren, "Performance Tasks," *Virginia Educational Leadership*, vol. 12 (2015): 39. https://cae.org/images/uploads/pdf/Assessing_21st_Century_Skills_with_Performance_Tasks.pdf
29) Ibid., 43.
30) Ibid., 44.

5) Research Methodology

Project Challenge

Leadership at a member district approached the Forum with the following directive:

Identify examples of publicly available district student success milestones related to academic achievement, social and emotional learning, and creative problem solving. Consider—where possible—how districts measure and assess student progress toward these milestones. In addition, review research related to student success milestones and assessment practices.

Project Sources

The Forum consulted the following sources for this report:

- EAB's internal and online research libraries (eab.com)
- National Center for Education Statistics (NCES) (http://nces.ed.gov/)
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Research Parameters

The Forum consulted secondary research to identify research-supported student success milestones. The Forum also investigated emerging research on how to identify and measure developmental milestones associated with social and emotional learning and critical thinking. Lastly, the Forum used secondary research to identify districts that have already completed milestone initiatives.

A Guide to Schools/Districts Profiled in this Report

District	Location	Approximate Enrollment
Catalina Foothills School District*	Arizona	5,000
Kamehameha Schools* (Private)	Hawai'i	5,500
Manitowoc School District*	Wisconsin	5,000
Mequon-Thiensville School District*	Wisconsin	3,500
Portland Public Schools*	Ohio	48,000
Virginia Beach City School District*	Virginia	69,000

*Profiled via secondary research