



**10 PRINCIPLES FOR BUILDING**

**A HIGH-QUALITY SYSTEM**

**OF ASSESSMENTS**

# IN JOINING TOGETHER,

we underscore our belief that if states and districts implement the enclosed ten principles for building and evolving a high-quality system of assessments, they will be taking impactful and much needed steps to bridge from current over-burdensome and incomplete assessment practices and policies to a system that puts each and every student's learning at the center. Together, these principles lay out a vision for systems focused on continuous improvement and the full array of knowledge, skills, and behaviors needed for each student to succeed beyond high school, in the workplace, and throughout life. While individually our organizations and efforts may emphasize different principles, collectively we share the goal of advancing equity in college, career, and civic readiness. As such, we stand ready to support states, districts, schools, and their communities in working toward building and evolving systems that embrace all ten principles to foster high-quality systems of assessments for all students.

*2Revolutions*

*Achieve*

*Alliance for Excellent Education*

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*Center for Curriculum Redesign*

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*Great Schools Partnership*

*iNACOL*

*Jobs for the Future*

*KnowledgeWorks*

*Learning Forward*

*Learning Policy Institute*

*MHA Labs*

*National Association of State Boards of Education*

*National Center for Learning Disabilities*

*Stanford Center for Assessment, Learning and Equity at the Stanford University Graduate School of Education*

**To add your organization's name to the 10 Principles signatories, please contact Maureen O'Connell at [moconnell@jff.org](mailto:moconnell@jff.org).**

# 10 PRINCIPLES

## for Building a High-Quality System of Assessments

### ONE

*Capture the array of knowledge, skills, and behaviors needed for college and career readiness (i.e., deeper learning)*

### TWO

*Balance assessment of learning with assessment for and as learning through a comprehensive set of tasks and measures*

### THREE

*Advance equity and be inclusive of and accessible to all students*

### FOUR

*Build educator and school capacity for designing and using assessments*

### FIVE

*Align assessments to support learning and avoid duplication of testing*

### SIX

*Convey clear, coherent, and continuous data on student learning*

### SEVEN

*Include meaningful, ongoing input and collaboration from local communities and diverse stakeholders in the development and continuous improvement of the system*

### EIGHT

*Encourage cycles of review, calibration, and continuous improvement of assessments individually and as a collective system*

### NINE

*Employ high standards of coherence, validity, reliability, and fairness*

### TEN

*Protect data privacy*



# INTRODUCTION

No single assessment or piece of student work can provide educators, students, parents, and the public with information about what students know and can do. High-quality, comprehensive, and timely information on student progress is critical to ensuring that schools can prepare each and every student for success in school, college, careers, and life. Educators, students, parents, and the public use information from a variety of assessments of student learning to inform and empower educational decisions in real time and across each year. Many states and districts are working toward developing and implementing high-quality systems that align assessments with each other, and to college and career readiness, and a comprehensive set of higher-order thinking skills. While significant strides have been made in advancing the quality of individual assessments, there still remains much work across our country to improve and better align systems of assessment. States and districts have a critical moment under ESSA and as we engage in a national dialogue on testing to accelerate and further evolve their work toward comprehensive systems of assessments.

In order to support states, districts, and communities in this, the signing organizations and individuals offer the following 10 principles as guidance and common language for advancing a high-quality system of assessments. While the primary audience for these principles is state and district leaders, we hope to follow this document with materials and tools that apply to schools, educators, and communities. The principles draw collectively on expertise developed over decades of studying and designing assessments and assessment systems, and efforts to advance the full array of college- and career-ready knowledge, skills, and behaviors for all students. (See references in appendix.) They also build on existing principles for high-quality assessments and systems of assessments developed by our organizations over the past several years. What is new and groundbreaking in this document is synthesizing this wealth of wisdom into one clear, concise-yet-comprehensive guide backed by well over a dozen leading national organizations and experts in the field. We believe that those individuals and organizations leading state and district assessment efforts should accelerate their work toward a high-quality system of assessments by considering these 10 principles to guide that process.

# MULTIPLE PURPOSES FOR ASSESSMENT

***Educational assessment has been central to the national conversation on education, including discussions on how many assessments are too many, and the purpose and use of assessments. These debates are often focused narrowly on statewide summative and other required assessments. In reality, educational assessments can take many forms, contain a variety of assessment item types, and take place at varying points throughout the school year—from projects and informal problem-solving tasks in the classroom to more formal multiple choice, extended responses or portfolios of work.***

***Assessments serve a variety of purposes and many do not just measure learning outcomes and growth but are also vital to the process of teaching and learning—especially formative assessments. Taken together in a coherent system, the complete continuum of assessment can provide a rich tapestry of information and learning for teachers and leaders, students, families, policymakers, and additional stakeholders.***

## Teachers & Leaders

Assessments allow teachers, school leaders, and other staff to understand college- and career-ready knowledge and skill levels at the beginning of a unit or school year, along the way, and at the end of the unit or the year, in order to make informed decisions on instruction, learning strategies, programming, and supports in response to assessment data for each individual student. College- and career-ready-aligned assessments designed and administered by educators or with educator and student input can also increase educator and student engagement, help teachers and leaders identify inequities in opportunities and outcomes, and can increase the relevance of assessments to classroom teaching, learning, and continuous improvement.

## Students

When assessments are timely and the purpose and results are clear and understandable, they can help students understand how their knowledge, skills, and behaviors are developing and engage them to own and advance their learning. Assessments, such as performance assessments and projects, can themselves be a learning opportunity, so they become assessments for and as learning, not just assessments of learning.

## Families

Clear, timely assessment data that are comparable and aligned to college and career readiness can provide each family with the information they need to understand and support their students' progress toward college and career readiness, to support and advocate for improvement strategies at the school and district levels, and to select a good-fit school and district for their students.

## Policy-makers

Assessment data that are valid, reliable, and comparable across schools, districts, and states, and that are coherent across assessments, can provide key information to policymakers on whether district-, state-, or nation-wide policies and programs are having an intended impact on student progress, where inequities exist, and where attention and resources may be most needed. These types of data can be obtained from performance assessments and other complex tasks when these tasks and scoring processes focus on clearly specified knowledge and skills, where common templates help create comparable tasks that are carefully reviewed and field-tested, and where trained raters score within a process that includes consistency checks and auditing.

## Additional stakeholders

Public disaggregated assessment data that are comparable, valid, and reliable are important for a variety of communities, including postsecondary institutions, education leaders, researchers, advocates, and employers, to help understand current education progress and inform programmatic and policy decisions—for example, to what extent students are in fact prepared for success in postsecondary education, whether inequities in student opportunities and outcomes are increasing or decreasing from year-to-year and place-to-place, and whether additional supports and strategies are needed in schools, districts, states, and/or nationally.

***No single assessment can meet all of these purposes. In a high-quality system of assessments, a variety of different assessments work together to provide coherent feedback on student learning and outcomes, and each assessment should be designed for its specific use and purpose. Together, assessments in a high-quality system are built not just to measure content knowledge but also to measure mastery of the full array of knowledge, skills, and behaviors needed for success in K-12 and beyond, such as the ability to: master core academic content, think critically and solve complex problems, work collaboratively, communicate effectively, learn how to learn, and develop academic mindsets (collectively referred to as “deeper learning”).<sup>1</sup>***

# BUILDING & EVOLVING A

# HIGH-QUALITY SYSTEM

# OF ASSESSMENTS

While states and districts have made great strides toward building high-quality systems of assessments, in far too many places, students, educators, parents, and the public still receive information that: does not address the broad spectrum of knowledge, skills, and behaviors needed for student success; may duplicate or provide conflicting or incoherent results may come at the wrong time to inform instructional or programming changes (i.e., not timely). Issues of scope, quality, alignment, timing, and efficiency have a significant impact on the assessments students take each year and the quality of information that educators, families, students, and the public are provided regarding students' instructional needs and the performance of schools and systems.

The enclosed ten principles can offer guidance to state and district leaders as they **evolve the current array of assessments into a high-quality system of assessments**. This evolution is particularly important given the prominence of assessments as drivers in our education system, and given what research now

tells us is needed for students to be college and career ready and how they best learn information. A system of assessments can help states and districts improve teaching and learning, and provide clear data on student progress through an array of assessments from formative to summative. A high-quality system of assessments can be envisioned in two levels: 1) a variety of types of tasks to demonstrate understanding and apply learning at the classroom or course level; combined with 2) a variety of assessments collected for the state and local level, with each assessment playing a different role in creating a complete picture of the system's ability to advance its students' college and career readiness.

All assessment systems should be designed to evaluate a comprehensive set of higher-order thinking skills and include one or more of the following:

1. Performance items or tasks (including as part of any traditional "sit down" tests used);

2. Curriculum-embedded tasks carried out in the classroom during the school year;
3. Portfolios or collections of evidence that display a broad set of competencies;
4. A combination of assessment and item types, including curriculum-embedded tasks, and portfolios and exhibitions leading to a student defense.

What these types of assessments have in common are their capacity to require students to construct an answer, produce a product, or perform an activity rather than simply identify a predetermined answer. They can include, for example, science experiments that students design, perform, analyze, and write up; computer programs that students create and test; and written or oral presentations about a research topic. Because these assessments typically require students to integrate knowledge, analysis, and action, they are better than multiple-choice tests at measuring higher-order thinking skills.<sup>2</sup> They are also better predictors of academic and vocational success in tasks requiring complex thinking and performance.<sup>3</sup>



An assessment system that includes these types of artifacts of student work throughout a year, especially when combined with valid measures of the other skills and behaviors needed for college and career success, can provide a more robust and cohesive picture of student readiness than most current assessments can today. Such a system should inform teaching and learning at the classroom level, and should include comparable, valid, reliable data that are statewide for accountability and more systemic decisions. Such a system should also help ensure that that assessments are aligned, are not duplicative, and meet the purpose for which they were designed.

**Creating a high-quality system of assessments requires a mindset and process shift in order to move from developing or selecting individual assessments to designing a coherent set of assessments that advances the full array of college- and career-ready knowledge, skills, and behaviors.** In part, the ten principles in this document speak specifically to some of the mindset and process shifts that are involved in building or enhancing a comprehensive system of assessments – including the shift to a theory of action and checks for coherence – which are still nascent in most systems. These principles are grounded in the idea that a high-quality system of assessments is based in a theory of action that aims to capture complex knowledge and skills needed for success in college and career. This theory of action is

critical in guiding the design and use of assessments in the system.

As states and districts design and implement their systems, we recognize that **they will need to address inherent challenges in developing a high-quality system of assessments**, including:

- Different individuals and political entities within a system are typically responsible for creating, administering, developing, and using different assessments—such as at the state, local, or school levels—and mechanisms for regular coordination and deliberation are needed;
- States and districts need to design a system that explicitly serves and addresses the different information needs of multiple users and stakeholders, which requires a systems-thinking approach and a theory of action around serving these needs;
- States and districts may need to innovate in order to create or find appropriate high-quality assessments that are accessible to all students and are aligned to true college and career readiness;
- It is necessary to build educator capacity to create, administer, and interpret high-quality assessments to inform instruction;
- There must be regular auditing of assessments at the district and state levels to determine alignment and discontinue assessments that

are duplicative, lower quality, or incoherent with the goals of the education system; and

- States and districts will need to create a variety of means to communicate in a coordinated manner with stakeholders about assessment.

We encourage those individuals and organizations leading state and local systems of assessment to seek out opportunities to collectively work with peers, technical experts, other organizations, policymakers, and stakeholders (including educators, parents, and community members) to address these challenges of high-quality assessment systems. We offer 10 principles for building a high-quality system of assessments to provide guidance and a common language as communities, districts, and states engage in this process.

# 10

## PRINCIPLES

### for Building a High-Quality System of Assessments

#### ONE

***Capture the array of knowledge, skills, and behaviors needed for college, career, and civic readiness (i.e., deeper learning)***

A high-quality system of assessments should be anchored in and assess students' deeper-learning knowledge, skills, and behaviors necessary for college, career, and civic readiness. These include the ability to master core academic content, think critically and solve complex problems, work collaboratively, communicate effectively, learn how to learn, and develop academic mindsets. Without assessments of these applied knowledge, skills, and behaviors, there is a risk that they will not be valued or explicitly taught in the classroom; and that students, educators, and parents lack information on whether students are on track to succeed in college and careers. Academic assessments should be aligned to a state's rigorous standards for college and career readiness and should also go beyond mathematics and English/language arts to measure other important knowledge, skills, and behaviors needed for success in college, careers, and life. A high-quality system of assessments should prioritize performance assessments and projects to capture deeper-learning outcomes in a robust way.

#### TWO

***Balance assessment of learning with assessment for and as learning through a comprehensive set of tasks and measures***

A high-quality system of assessments places a focus on incorporating a wide variety of assessments from the state and local levels to inform educational decisions, ideally with each assessment contributing a specific purpose and use within the coherent whole. This comprehensive array of measures not only informs accountability, but importantly allows educators and students to inform their future instructional, learning, and studying strategies (assessment for learning) and to learn from the process of their assessment experiences (assessment as learning). For example, a capstone project or assessments like those in the International Baccalaureate program are examples of summative assessments that are also performance-based and designed to advance teaching and student learning while providing information to students, educators, and the public. The system should elevate a focus on helping educators use data from across all of these assessments to inform teaching, student learning strategies, and continuous improvement in a timely manner, while ensuring the set of assessments also informs public accountability and systemic improvement.

## THREE

***Advance equity  
and be inclusive of  
and accessible to  
all students***

At the school and district levels, a high-quality system of assessments should advance equity by providing data that highlights learning outcomes and by providing learning experiences and information that support high-quality, college- and career-ready teaching and learning for each and every student and group of students. Efforts to embed equity in systems of assessment should embody broader systemic efforts to disrupt patterns of inequity, bias, and exclusion in our education systems while advancing more student-centered learning approaches. The array of data produced should include some information on college and career readiness that is comparable, valid, and reliable statewide, so that stakeholders have a sense of student learning across schools and districts and across groups of students. Each assessment within a high-quality system—and the totality of the assessments within that system—should be aligned to college and career readiness, and inclusive of and accessible to all students, including students with disabilities and English language learners. Assessments should be designed to allow for accommodations for students with disabilities and English learners, be designed in a way that incorporates the principles of Universal Design for Learning, and should maintain high standards for all students.<sup>4</sup> Assessments should be fair, as outlined in *The Standards for Educational and Psychological Testing* developed jointly by the American Educational Research Association, the American Psychological Association, and the National Council on Measurement in Education. Alternate assessments aligned to alternate achievement standards should only be administered where necessary and appropriate. Additionally, knowledge, skills, and behaviors assessed should be those that can be taught and mastered in the classroom so that assessments do not presuppose students coming to school with prior knowledge from particular contexts.

## FOUR

***Build educator and  
school capacity for  
designing and using  
assessments***

A high-quality system of assessments should be accompanied by efforts to build the capacity and resources needed to support the shift to a new system of assessments, which includes the work that teachers do every day to assess student learning. The system should also ensure that teachers and leaders are prepared with the tools, knowledge, and skills to develop, administer, and score assessments (where appropriate) and use information from the various assessments in the system. Teachers must also have opportunities to develop the skills to design meaningful assessment experiences—both formative and summative—so that when used together, educators, parents, schools, and districts have the complete set of information they need to support student learning. Finally, as teachers build these skills, tools, and practices, they should have the support of their school and district to take the time and training needed to become skilled in new assessment practices, and the culture should encourage some risk-taking and innovation in this area. These professional learning opportunities and tools are not standalone trainings but are built into the school culture, structure, and routines, enabling and empowering teams of educators (including teachers, principals, and other educators) to develop and use quality assessments to support teaching and leading for deeper learning outcomes. At the same time, students should be intentionally prepared for shifts in assessment practices to ensure that they are engaged and increasingly comfortable with new assessment formats that elevate deeper learning.

## FIVE

### ***Align assessments to support learning and avoid duplication of testing***

A high-quality system of assessments should be as efficient as possible for teachers and students, while recognizing the critical role that a variety of assessments play in a quality education system. Assessments should be organized around a theory of action that efficiently captures and encourages the full array of college- and career-ready knowledge, skills, and behaviors. The goal should not be to minimize time on testing solely for the sake of time—which could lead to eliminating some of the most important indicators of student learning, such as performance assessments. Instead, those selecting, designing, and aligning assessments should ensure that the system measures the highest-value knowledge, skills, and behaviors, such as deeper learning skills, and should ensure coherence among those assessments, while eliminating any duplicative assessments. For example, curriculum-embedded performance assessments, such as extended tasks, can help align and maximize assessment experiences because students and educators experience them as instructional time, and yet they are designed and scored to provide reliable disaggregated information on student learning and system performance. Audits of the system of assessments at the state, local, and school levels can help provide an initial check of what is presently in place, and help eliminate assessments that are poorly aligned, low-quality, or duplicative, in order to minimize testing time and maximize the use of assessment for learning. Ongoing communication mechanisms are needed to ensure that schools, districts, and states are coordinating around what information is being collected from assessments in the system.

## SIX

### ***Convey clear, coherent, and continuous data on student learning***

Starting from the principles outlined in *Knowing What Students Know*, a high-quality system of assessments should enable complete, coherent, continuous, and clear pictures of student and school progress to college and career readiness, in a way that data from individual assessments are often found lacking.<sup>5</sup> To demonstrate this coherence, assessments should align with curriculum and instruction (horizontal coherence) so that assessment results are in alignment with expectations and what students are being taught. Assessments should also align with each other within the system, so that formative assessments are coherent with summative and any other assessments, and so that, up and down the levels of classroom, school, district, and state assessments, the results provide a coherent picture (vertical coherence). Additionally, the assessment system should provide a picture of student learning over time (continuity), incorporating student learning progressions into the design of assessments across grade levels. Data tools built to accompany the system of assessments should be tailored to the needs of different data users, such as students, parents, teachers, community leaders, and policymakers, for interpreting assessment data and identifying needed educational changes as a result of the data. These data should capture progress on mastering the variety of knowledge, skills, and behaviors needed for college and career readiness, and assessment data should be disaggregated by groups of students to the maximum extent possible

for transparency. High-quality information from the system of assessments should be timely, accessible, and clear for educators, students, families, schools, districts, and other stakeholders to support high-quality instructional shifts and engagement in the improvement process. This means that the various parts of an assessment system must work together across system levels. State and local data systems and data dashboards should also be updated to capture and display a fuller array of college- and career-readiness indicators.

## **SEVEN**

***Include meaningful, ongoing input and collaboration from local communities and diverse stakeholders in the development and continuous improvement of the system***

A high-quality system of assessments should be developed and continuously improved with robust stakeholder engagement and clear communication to ensure that key users like educators, students, parents, employers, postsecondary institutions, and community leaders understand, find value in, and support the system of assessments. Engagement should include gaining input on how information from assessments can be shared in the most accessible and helpful way, as well as discussion of how assessments are used in an ongoing manner as part of the teaching and learning process. For example, audits of an assessment system can help key users of assessment data and stakeholders understand the types of information contributed by each assessment, whether there is good alignment to college and career readiness and alignment among assessments, whether there is duplication between assessments, whether there is an imbalance between formative and summative assessment, and other characteristics across a system. This process can prepare communities and stakeholders to productively engage in public conversations about a system of assessments.

## **EIGHT**

***Encourage cycles of review, calibration, and continuous improvement of assessments individually and as a collective system***

A high-quality system of assessments should include mechanisms to pilot and evaluate innovative assessments and then incorporate and continuously improve those that capture and reflect the deeper-learning skills needed for college and career readiness and more student-centered learning. This includes locally determined assessments aligned to college and career readiness—which often allow more educator and student input into design for increased instructional relevance, buy-in, and sustainability; and assessments that allow students to personalize their learning and show mastery in a way that best reflects this personalization, such as competency-based performance assessments. States, districts, and schools should collaborate on and implement strong continuous improvement mechanisms to help ensure changes in assessments are serving their intended purposes, and that successful assessment innovations that advance equity spread and scale while weak ones are quickly abandoned. Innovations and changes should be rolled out over time, to ensure there is time to continuously improve them along the way.

## NINE

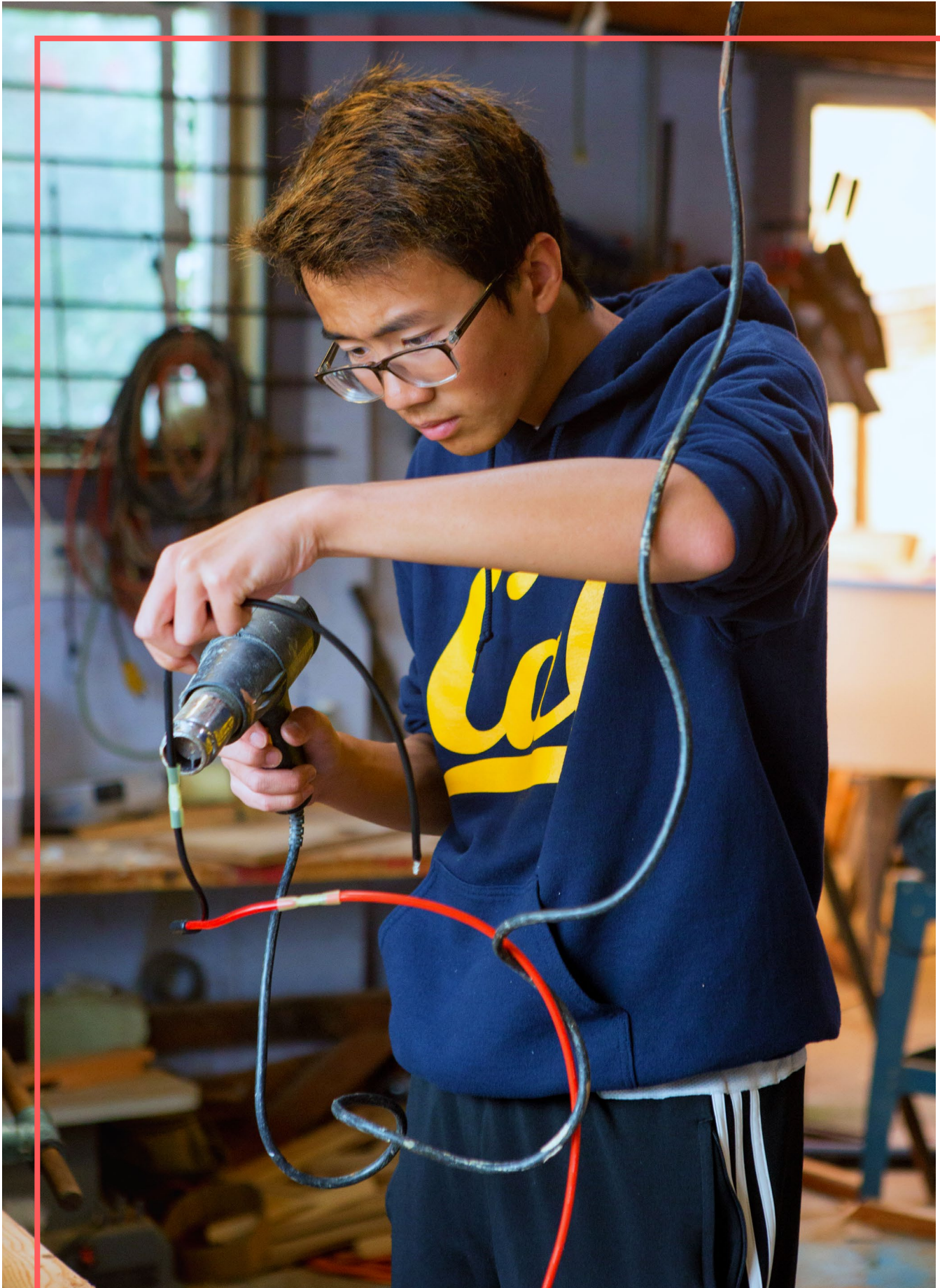
### ***Employ high standards of coherence, validity, reliability, and fairness***

A high-quality system of assessments should be aligned with a state, district, or community's clear theory of action around preparing students for college and career readiness. It should employ high standards of validity, reliability, and fairness for all students for each assessment contingent on the use of the specific assessment (e.g. formative vs. summative), aligned with the theory of action for that system. The system should also demonstrate coherence among the assessments, and each assessment should be used in a manner consistent with its intended purpose. Quality and validity take different forms depending on the purpose and use of the assessment. Taken as a whole, the system of assessments should be guided by the *Standards for Educational and Psychological Testing*. The Standards make clear that test scores should not be used alone for consequential purposes, and when a system of multiple assessment points is aggregated together, the resulting data about student performance provide a more accurate picture when high-stakes decisions are being made. Additionally, because processes for certifying the validity and reliability of a full system of assessment are still being developed and are continuously evolving, states, districts, and schools should examine the coherence of the system across all assessments in addition to the validity, reliability, and fairness of individual assessments.

## TEN

### ***Protect data privacy***

High-quality student data are critical to empowering students, families, educators, and communities to learn more about educational effectiveness. Data collected through assessments must be transparent and as meaningful as possible for stakeholders in order to spur advances in educational quality and college and career readiness. At the same time, those data must be protected and secure. Data and privacy policies and practices should meet the criteria outlined in the *Student Data Principles* developed by the Data Quality Campaign and 33 other organizations, and should continually evolve to meet current assessment and data technology capabilities.<sup>6</sup>



# ENDNOTES

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6. "10 Foundational Principles for Using and Safeguarding Students' Personal Information," Student Data Principles, n.d., <http://studentdatapinciples.org/the-principles/>.



# APPENDIX A: REFERENCES

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## Principle Two

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A Supporting State Policy Framework n.d.

Pellegrino, Chudowsky, and Glaser 2001.

#### **Principle Seven**

*Include meaningful, ongoing input and collaboration from local communities and diverse stakeholders in the development and continuous improvement of the system*

Conley and Darling-Hammond 2013.

*Comprehensive Statewide Assessment Systems: A Framework for the Role of the State Education Agency in Improving Quality and Reducing Burden*. 2015. Washington, DC: The Council of Chief State School Officers. <https://www.ccsso.org/resource-library/comprehensive-statewide-assessment-systems>

*Criteria for Procuring and Evaluating High-Quality Assessments*. 2014. Washington, DC: The Council of Chief State School Officers. <https://www.ccsso.org/resource-library/comprehensive-statewide-assessment-systems>

Darling-Hammond, Wilhoit, and Pittenger 2014.

Pecheone, Raymond, et.al. N.d. *Redesigning assessment systems: emerging lessons from three states*. Boston, MA: Jobs for the Future.

Sigman, D., & Mancuso, M. (2017). *Designing a comprehensive assessment system*. San Francisco, CA: WestEd. <https://www.wested.org/wp-content/uploads/2017/03/resource-designing-a-comprehensive-assessment-system.pdf>

#### **Principle Eight**

*Encourage cycles of review, calibration, and continuous improvement of assessments individually and as a collective system*

Criteria for Procuring and Evaluating High-Quality Assessments 2014.

#### **Principle Nine**

*Employ high standards of coherence, validity, reliability, and fairness*

*The Standards for Educational and Psychological Testing* 2014.

Chattergoon and Marion 2016.

Darling-Hammond 2010.

Gordon 2013.

Marion, Scott, Lillian Pace, Matt Williams, and Susan Lyons. 2016. *Project Narrative: Creating*

*a State Vision to Support the Design and Implementation of an Innovative Assessment and Accountability System.* Cincinnati: KnowledgeWorks. <http://www.knowledgeworks.org/sites/default/files/u1/project-narrative-innovative-assessments.pdf>.

Pellegrino, James W., Louis V. DiBello, and Susan R. Goldman. 2016. "A Framework for Conceptualizing and Evaluating the Validity of Instructionally Relevant Assessments." *Educational Psychologist* 51 (1): 59-81. <http://www.tandfonline.com/doi/full/10.1080/00461520.2016.1145550>.

<https://dataqualitycampaign.org/resource/four-policy-priorities-make-data-work-students/>

*Ten Steps Every District Should Take Today.* 2015. Washington, DC: Consortium for School Networking. [http://www.cosn.org/sites/default/files/CoSN\\_10Steps.pdf](http://www.cosn.org/sites/default/files/CoSN_10Steps.pdf).

## **Principle Ten**

*Protect data privacy*

Student Data Principles. N.d. "10 Foundational Principles for Using and Safeguarding Students' Personal Information." <http://studentdataprinciples.org/the-principles/>.

Student Data Principles. N.d. "Four Policy Priorities to Make Data Work for Students."

*Photographs courtesy of Allison Shelley/The Verbatim Agency for American Education: Images of Teachers and Students in Action*

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