



PERFORMANCE ASSESSMENT CASE STUDY SERIES

Using Performance Assessments to Support Student Learning in Pasadena Unified School District

Julie Adams and Maya Kaul

PERFORMANCE ASSESSMENT CASE STUDY SERIES

Using Performance Assessments to Support Student Learning in Pasadena Unified School District

Julie Adams and Maya Kaul

Acknowledgments

The authors thank the many teachers, site coordinators, and district personnel at Pasadena Unified School District who welcomed us into their schools for observations and who shared their valuable time with us during focus groups and interviews. Thank you to each of the individuals who helped coordinate our data collection at each school site. We thank the students who allowed us to sit in on their presentations and took the time to participate in focus groups. Special thanks to Kristina Turley-Payne and Sofia Valadez-Paez, who volunteered their time for thoughtful review, feedback, and general guidance on the study.

We are also grateful to Roneeta Guha for her substantial contributions to the design of this study and for data collection. Additional thanks are owed to Marisa Saunders and our LPI colleagues Dion Burns, Linda Darling-Hammond, Jennifer DePaoli, Anna Maier, Monica Martinez, Caitlin Scott, and Charlie Thompson for their time collecting data, reviewing multiple versions of this case, sharing their insights, and providing feedback. In addition, we thank Erin Chase and Aaron Reeves for their editing and design contributions to this project and the entire LPI communications team for its invaluable support in developing and disseminating this report. Without their generosity of time and spirit, this work would not have been possible.

This research was supported by the Stuart Foundation. Core operating support for the Learning Policy Institute is provided by the Heising-Simons Foundation, Raikes Foundation, Sandler Foundation, and William and Flora Hewlett Foundation. We are grateful to them for their generous support. The ideas voiced here are those of the authors and not those of our funders.

External Reviewers

This report benefited from the insights and expertise of one external reviewer: Ann Jaquith, Associate Director of the Stanford Center for Opportunity Policy in Education. We thank her for the care and attention she gave the report.

The appropriate citation for this report is: Adams, J., & Kaul, M. (2020). *Using performance assessments to support student learning in Pasadena Unified School District*. Palo Alto, CA: Learning Policy Institute.

This report can be found online at <https://learningpolicyinstitute.org/product/cpac-district-initiatives-assess-student-learning>.

Cover photo provided with permission by Pasadena Unified School District.

This work is licensed under the Creative Commons Attribution-NonCommercial 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc/4.0/>.



Document last revised October 9, 2020

Table of Contents

Executive Summary	v
Introduction	1
District Context for Performance Assessments	3
About Pasadena Unified School District	3
Historical Context of Performance Assessments in Pasadena Unified	5
Implementing a Performance Assessment Initiative Through District Policy.....	7
How the Senior Defense Works	10
Student Work.....	11
Scoring and Feedback	12
Systems of Support	14
Teacher Supports.....	14
School Administrator Supports	16
Student Supports	17
Funding and Technical Assistance.....	18
Conditions That Support the Implementation of a High-Quality Performance Assessment Initiative	20
A Supportive Policy and Practice Environment	20
A Strong Vision and District-Led Policy	22
Access to Resources and Technical Assistance	24
Multiple, Varied Opportunities to Observe Performance Assessments in Action	27
A Plan for Implementation.....	30
Meaningful Learning for Students and Teachers	35
Broadening Student Outcomes	35
Supporting Instructional Practice and Improvement	38
Lessons Learned	42
Conclusion	44
Appendix A: Methodology	46
Appendix B: Graduate Profile Quality Criteria Check	49
Appendix C: Research Rubric	50
Appendix D: Creativity/Innovation Rubric	51
Appendix E: Written Communication/Reflection Rubric	52

Appendix F: Oral Communication/Presentation Rubric	53
Appendix G: Districtwide Requirement With Two Options for Students During a Pandemic.....	54
Endnotes	55
About the Authors	59

List of Figures and Tables

Figure 1 Pasadena Unified Graduate Profile.....	7
Figure 2 Plan to Develop and Scale the Senior Defense.....	8
Table 1 Pasadena Unified at a Glance (2018–19).....	4
Table 2 Pasadena Unified’s College and Career Academies and High Schools.....	6

Executive Summary

A lot of [students] have said, “I’ve never had to do anything like [the senior defense]. And I learned a lot about myself.” That’s really exciting, ... especially the sense that we’re giving students the opportunity to do this before they step out into a bigger venue.

This reflection was shared by a district-level administrator in Pasadena Unified School District (Pasadena Unified) and refers to the experience Pasadena Unified students have completing a performance assessment called the senior defense. This performance assessment requires all graduating students in Pasadena Unified to curate a collection of their work, including a research paper, and present to a judging panel consisting of teachers, peers, and/or community members. The senior defense became a graduation requirement for all students in Pasadena Unified starting with the graduating class of 2019. After 4 years of planning and capacity building, Pasadena Unified saw every senior complete a senior defense during the 2018–19 school year.

Pasadena Unified introduced the senior defense to help each student develop the skills, abilities, and mindsets associated with the district’s ideal graduate. These include critical, creative, and innovative thinking; effective communication and collaboration; a healthy mind and body; cultural competence; and students being prepared for college and the career(s) of their choice. The characteristics of the ideal graduate are articulated in Pasadena Unified’s graduate profile—a unified vision for student outcomes, developed in collaboration with educators, district leaders, and community members. After developing this vision, the Pasadena Unified Board of Education passed the senior defense as a graduation requirement, signaling a commitment to equitable access to high-quality learning for all students.

Pasadena Unified’s approach is grounded in research on how performance assessments help students and educators strive for meaningful learning goals, while also reliably assessing student learning. Performance assessments encompass a wide variety of activities, all of which require students to show what they know, rather than selecting answers from predetermined options on a multiple-choice test. Recent reviews of the literature show that well-designed performance assessments can provide the opportunity for students to demonstrate readiness based on a wide range of activities and under conditions that mirror those in which students will need to apply their skills in their work beyond secondary school. Further, these reviews demonstrate that performance assessments can measure outcomes for students of different racial and ethnic groups. Performance assessments, therefore, can have implications for curriculum, instruction, and school design.

This report is part of a series of three case studies examining the key district-, school-, and classroom-level conditions necessary to support high-quality performance assessment practices. All three districts actively participate in the California Performance Assessment Collaborative (CPAC), a community of educators, researchers, and technical assistance providers who are working to study and advance the use of performance assessments throughout the state. A cross-case study that accompanies this report provides insights across all three case study districts, as well as recommendations for district policymakers interested in implementing well-designed performance assessments within their own context.

The Pasadena Unified case study draws on data from a range of sources, including documents, district administrative data, interviews with a range of personnel at the district and school levels, focus groups with teachers and students, observations of senior defense presentations, and observations of professional learning opportunities for teachers and staff. The study is not an evaluation of Pasadena Unified as a whole or of the success of the senior defense initiative within the district. Instead, it provides an in-depth description of how Pasadena Unified has attempted to advance districtwide implementation of the senior defense.

Our analysis of data from Pasadena Unified suggests that the following key conditions enabled the district's performance assessment initiative:

- A supportive policy and practice environment
- A strong vision and district-led policy
- Access to resources and technical assistance
- Multiple, varied opportunities to observe performance assessment systems
- A plan for implementation

Further, data from student and teacher interviews and focus groups show that:

- the first year of the senior defense broadened the ways student outcomes are measured; and
- the implementation of the senior defense supported instructional practice and improvement.

Based on these findings related to key conditions and perceived student and teacher outcomes, we identify five of the emerging implications of Pasadena Unified's performance assessment practices for student learning and teacher practice:

1. **Starting with a clear vision for students' college and career preparation can be a powerful driving force for implementing performance assessments.** By defining a set of skills and competencies for students to develop by the time they graduate, schools and districts can think critically about the instructional practices that enable students to achieve this goal and the best methods to assess student learning in these areas. The Pasadena Unified story shows how the process of developing a graduate profile can lead to an effort to establish districtwide performance assessments as part of a balanced system of assessment.
2. **Having opportunities to observe performance assessments—in addition to receiving clear and consistent messaging about the purpose and components of such assessments—can help staff, students, parents, and community members see the value in this work.** Pasadena Unified stakeholders described the importance of seeing students engage in defenses of their work. This reportedly helped increase understanding of what performance assessments are and why they are important. After witnessing even a single instance of students defending and reflecting on their learning, such as the Pasadena Unified districtwide professional learning day, stakeholders may better understand the purpose and value of this assessment practice. Messaging about both the purpose and the components of a performance assessment initiative, such as the Pasadena Unified senior defense, can also help stakeholders see the value in the assessment practices and ensure that both students and teachers understand the process and requirements. In Pasadena

Unified, some students and staff suggested that if they received more clear and consistent messaging from the start, it could have helped ease the transition to the new performance assessment initiative.

3. **Implementation of a districtwide performance-based graduation requirement can be supported by ensuring that educators have sufficient time and resources.** Developing a phase-in plan and dedicating time to relevant professional learning opportunities can help support the implementation of a districtwide performance-based graduation requirement such as the Pasadena Unified senior defense. Having dedicated district- and school-level staff take on certain responsibilities, including offering professional development for teachers, coaching students, and scheduling student defenses, can also help ensure a smooth transition to a new performance-based graduation requirement at individual school sites.
4. **Strong supports can help teachers and students succeed, especially in the early years of implementing a new performance assessment policy.** In Pasadena Unified these supports included a site coordinator, guidance for teachers and students, and professional learning around the use of rubrics and calibration of scoring. In particular, Pasadena Unified educators viewed consistent guidance and support for students as an essential component of ensuring students were able to meet the new senior defense graduation requirement with a high level of rigor. This support could include a site coordinator to guide students through the new process, as well as peer supports (i.e., formal or informal opportunities for students to talk with their peers who have already completed the process). Similarly, consistent guidance and support for teachers can help build their capacity to implement curricular and instructional practices aligned to a new performance assessment requirement, such as the senior defense. Professional learning opportunities that focus on the implementation of performance assessments, including how to use rubrics and calibrate scoring practices, may be especially valuable. It is also important to provide support on an ongoing basis to both new and veteran teachers, especially as new teachers and staff are hired.
5. **Engaging in performance assessments can positively influence educators' instructional practices, even as the work is just starting out.** Because of the feedback loop performance assessments can create, participation in a performance assessment process can help educators diagnose areas in need of instructional and curricular improvement and adjust their practice to better support student learning. For example, after participating on a judging panel for student defenses, teachers may better understand the need for vertical alignment of instructional practices and the importance of providing students with opportunities to reflect on their learning.

Taken together, these practices in Pasadena Unified represent a shift in assessment, teaching, and learning from more traditional teacher-directed activities in autonomous classrooms toward collaboration and shared responsibility with colleagues, as well as with students themselves.

Introduction

In Pasadena Unified School District (Pasadena Unified), the ideal graduate is a critical, creative, and innovative thinker who can communicate and collaborate effectively, has a healthy mind and body, is culturally competent, and is prepared for college and the career(s) of their choice. To help each student develop the skills, abilities, and mindsets associated with the ideal graduate, Pasadena Unified introduced a new districtwide graduation requirement: a performance assessment, which is a hands-on approach to assessing student learning that can range from essays and open-ended problems on tests to classroom-based projects. This performance assessment, called the senior portfolio and defense (senior defense), requires all graduating students to curate a collection of their work, including a research paper, and present to an audience of teachers, peers, and/or community members. It became a requirement for all students starting with the graduating Class of 2019. After 4 years of planning and capacity building, Pasadena Unified saw every senior complete a senior defense during the 2018–19 school year.

Pasadena Unified’s approach is grounded in research on how performance assessments help students and educators strive for meaningful learning goals, while also reliably assessing student learning.¹ Performance assessments encompass a wide variety of activities, all of which require students to show what they know, rather than selecting answers from predetermined options on a multiple-choice test. Recent reviews of the literature show that well-designed performance assessments can provide the opportunity for students to demonstrate readiness based on a wide range of activities and under conditions that mirror those in which students will need to apply their skills in their work beyond secondary school.² Further, these reviews demonstrate that performance assessments can measure outcomes for students of different racial and ethnic groups. Performance assessments, therefore, can have implications for curriculum, instruction, and school design.³

A performance assessment such as Pasadena Unified’s senior defense can provide students with opportunities to reflect on their learning, conduct original research, demonstrate creativity and innovation, and orally present in front of an audience of educators and community members. This process can both enhance student learning and support teachers in understanding where to address instructional gaps.

In its work on the senior defense, Pasadena Unified draws on the support of a statewide community of practice, the California Performance Assessment Collaborative (CPAC). Launched in 2016 in response to the suspension of the standardized California High School Exit Exam, CPAC has brought together more than 300 educators, technical assistance partners, researchers, and funders to learn with and from each other about implementing well-designed performance assessments in schools and districts throughout California. This group represents over 60 secondary schools across 15 districts, 6 school districts with active engagement from district leaders, 6 school networks, and 5 technical assistance partners—together serving many thousands of California students.

This report is part of a series of three case studies of districts participating in CPAC. The study examines the key district-, school-, and classroom-level conditions necessary to support high-quality performance assessment practices. The other two cases focus on Oakland Unified School District and Los Angeles Unified School District. We also analyze data across the three cases in the

accompanying cross-case report, *Using Performance Assessments to Support Student Learning: How District Initiatives Can Make a Difference*. Individual research teams collaborated on the design of each district case study, as well as on the broader cross-case study.

This case study draws on interviews, focus groups, and observations of district-led professional learning sessions and senior defense presentations. Three Pasadena Unified sites were selected to represent schools of different sizes and student populations. (See Appendix A for more information on our methods.)

The goal of this study is to better understand the dynamics of implementing performance assessments districtwide and to bring this information to the attention of educators and policymakers. The study is not an evaluation of Pasadena Unified as a whole or of the success of the senior defense initiative in the district. Instead, the study provides an in-depth description of how Pasadena Unified has attempted to move to districtwide implementation of its senior defense.

This report begins with a description of the district context and a brief history of how the senior defense became a graduation requirement for all students in Pasadena Unified. It then describes the components that define Pasadena Unified's senior defense practices and what our analysis suggests are the key conditions supporting that initiative. Next, the report explores participants' perceptions of student and teacher outcomes based on one-on-one interviews and focus groups. Based on these findings related to key conditions and perceived outcomes, we identify some of the emerging implications of Pasadena Unified's performance assessment practices for student learning and teacher practice.

The cross-case study that is related to this report provides insights across all three case study districts, as well as recommendations for district policymakers interested in implementing well-designed performance assessments within their own context.⁴

District Context for Performance Assessments

Pasadena Unified is notable for passing a districtwide requirement that all graduating students successfully compile a portfolio of their work and complete a defense of their learning, starting with the Class of 2019. This performance assessment is called the senior portfolio and defense (senior defense). To understand the administrative work and community input that has driven this policy change, it is first necessary to situate Pasadena Unified’s performance assessment initiative within the broader demographic context and historical policy landscape of the district.

About Pasadena Unified School District

Bringing together students from the cities of Pasadena, Altadena, and Sierra Madre, Pasadena Unified serves more than 17,000 students across 33 schools.⁵ Of the district’s 28 non-charter schools, three are combined middle and high schools, two are traditional high schools, and one is a continuation high school.⁶ Together, these secondary schools serve a total of 5,959 students.⁷ Among these students, 58% are Latino/a, and the remainder of the student population is composed primarily of African American, White, Asian, Filipino, and Pacific Islander students (see Table 1).⁸ English learners comprise 15% of the student enrollment—slightly lower than the statewide percentage (19%).⁹

The demographics of students within Pasadena Unified are not, however, aligned with the demographics of the Pasadena community at large—a dynamic that accounts for “a real disconnect between the community and the school district,” in the words of one Pasadena Unified school board member.¹⁰ According to the board member, in the wake of the district’s court-ordered desegregation efforts decades ago, “White families, the predominant group making up the higher socioeconomic demographic, left the district for private schools.”¹¹

As a result, Pasadena Unified schools serve a disproportionately high concentration of Latino/a and African American students relative to the overall demographics of the city. Additionally, while less than 16% of residents of Pasadena earn incomes below the poverty line,¹² 60% of the students in Pasadena Unified come from low-income families (see Table 1). These dynamics have reportedly resulted in a “historically strained relationship between the school district and the community” and in “low expectations, community disengagement from the school district, and an initial ‘us versus them’ culture.”¹³ These dynamics matter in the context of the district’s performance assessment system insofar as they contribute to the overall political climate of the district.

Table 1
Pasadena Unified at a Glance (2018–19)

	Pasadena Unified School District	California
Student Enrollment	17,748	6,186,278
Schools	33	10,521
Race/Ethnicity	<ul style="list-style-type: none"> • 58% Latino/a • 19% White • 7% Asian, Filipino/a, or Pacific Islander • 12% African American • 4% Other or Not Reported 	<ul style="list-style-type: none"> • 55% Latino/a • 23% White • 12% Asian, Filipino/a, or Pacific Islander • 5% African American • 5% Other or Not Reported
Students From Low-Income Families^a	60%	61%
English Learners^b	15%	19%
Students With Disabilities	15%	13%
4-Year Adjusted Cohort High School Graduation Rate	85%	88%
11th-Grade Smarter Balanced Assessment Performance (non-charter students)	<ul style="list-style-type: none"> • 47% proficient for English language arts • 22% proficient for mathematics 	<ul style="list-style-type: none"> • 58% proficient for English language arts • 33% proficient for mathematics
Graduates Meeting A-G Course Requirements for UC/CSU Admission	49%	50%

^a Percentage of students who were classified by the California Department of Education as “socioeconomically disadvantaged,” meaning that they were eligible for free or reduced-price meals or had parents or guardians who did not receive a high school diploma.

^b Does not include English learners who have been reclassified as “fluent English proficient.”

Notes: For high school–level data only, we excluded charter schools (and students enrolled in charter schools) because the district performance assessment initiatives do not include charter schools. We included students enrolled in both charter and non-charter schools when reporting overall district demographics.

Data source: California Department of Education, DataQuest, 2019.

As Table 1 indicates, the 11th-grade standardized test scores in English language arts and mathematics, as well as the percentage of graduating students who met the A-G course requirements for admission to the University of California or California State University systems, were below average for the state in the 2018–19 school year. When comparing Pasadena Unified’s outcomes to statewide averages, it is important to keep in mind that research indicates student outcomes, particularly on standardized tests, are associated with demographic factors including family income and education level and the influence of neighborhood peers and of classmates who may be relatively more advantaged or disadvantaged.¹⁴

Historical Context of Performance Assessments in Pasadena Unified

Pasadena Unified’s existing performance assessment system is grounded in the district’s long-standing commitment to advancing career and technical education at the secondary level. One of the earliest signals of this priority was the district’s implementation of California Partnership Academies (CPAs), which were introduced as a statewide pilot program by the California State Assembly in 1984.¹⁵ The CPAs provide a selective, “school-within-a-school” learning experience to students who meet at least three “at-risk” (now referred to as “at-promise”) criteria.¹⁶ CPAs were introduced in select districts across the state as a means of improving student outcomes by connecting academics with career and technical education, with each academy built around one of 15 industry fields, such as Health Science and Medical Technology or Business and Finance.¹⁷ In the 1989–90 school year, the Health Careers Academy at Blair High School was the first CPA to be introduced to Pasadena Unified.¹⁸

During the 2007–08 school year, when John Muir High School in Pasadena Unified experienced a significant drop in academic performance on state testing, the district recognized that it would need to make some major changes at that school site in order to avoid state intervention. Working with “parents, staff, local businesses, and other community members,” the district developed a plan to reconstitute John Muir High School in order to center “small, caring, relevant, rigorous, and personalized learning communities” as a guiding principle.¹⁹ Pasadena Unified also adopted the Linked Learning “multiple pathways” framework for reforming John Muir High School. The Linked Learning approach—developed by the James Irvine Foundation—is designed to prepare college- and career-ready high school graduates through a high-quality program of study that integrates college preparatory curriculum, a rigorous career technical education sequence, and work-based learning opportunities.²⁰

Since the introduction of the Linked Learning approach at John Muir High School, the district effectively helped the school recover, bringing the schoolwide dropout rate down from 9% in the 2007–08 school year to 2% in 2016–17.²¹ Seeing the Linked Learning approach transform John Muir High School inspired the district to scale up Linked Learning as “the primary reform strategy for secondary education” across the entire district.²² As such, Pasadena Unified was awarded an initial \$125,000 planning grant, and then a subsequent \$1.2 million implementation grant from the James Irvine Foundation to work with ConnectED: The National Center for College and Career.²³ ConnectED partnered with the foundation to support the implementation of Linked Learning through technical assistance to schools and districts in California.²⁴ Pasadena Unified worked closely with ConnectED to scale the Linked Learning model across the district—largely within the existing CPA structure.²⁵

Today, Pasadena Unified’s eight College and Career Academies represent a blend of the CPA model and the Linked Learning approach. The academies are each housed in one of four district secondary schools (see Table 2) and enroll a total of 2,052 students (34% of the district’s total population of high school students).²⁶ These academies build on the legacy of CPAs and Linked Learning, and they function analogously to the Linked Learning programs of study—i.e., pathways—that are the hallmark of other Linked Learning districts throughout the state.

Table 2
Pasadena Unified’s College and Career Academies and High Schools

Academies	High Schools
Health Careers Academy	Blair High School
<ul style="list-style-type: none"> • Arts, Entertainment & Media • Business & Entrepreneurship • Engineering & Environmental Science Academy 	John Muir High School
Academy for Creative Industries	Marshall Fundamental
<ul style="list-style-type: none"> • App Academy • Creative Arts, Media, and Design • Law and Public Service 	Pasadena High School

Source: Pasadena Unified School District. (n.d.). College and Career Academies: Academies. <https://www.pusd.us/Page/711> (accessed 05/21/20).

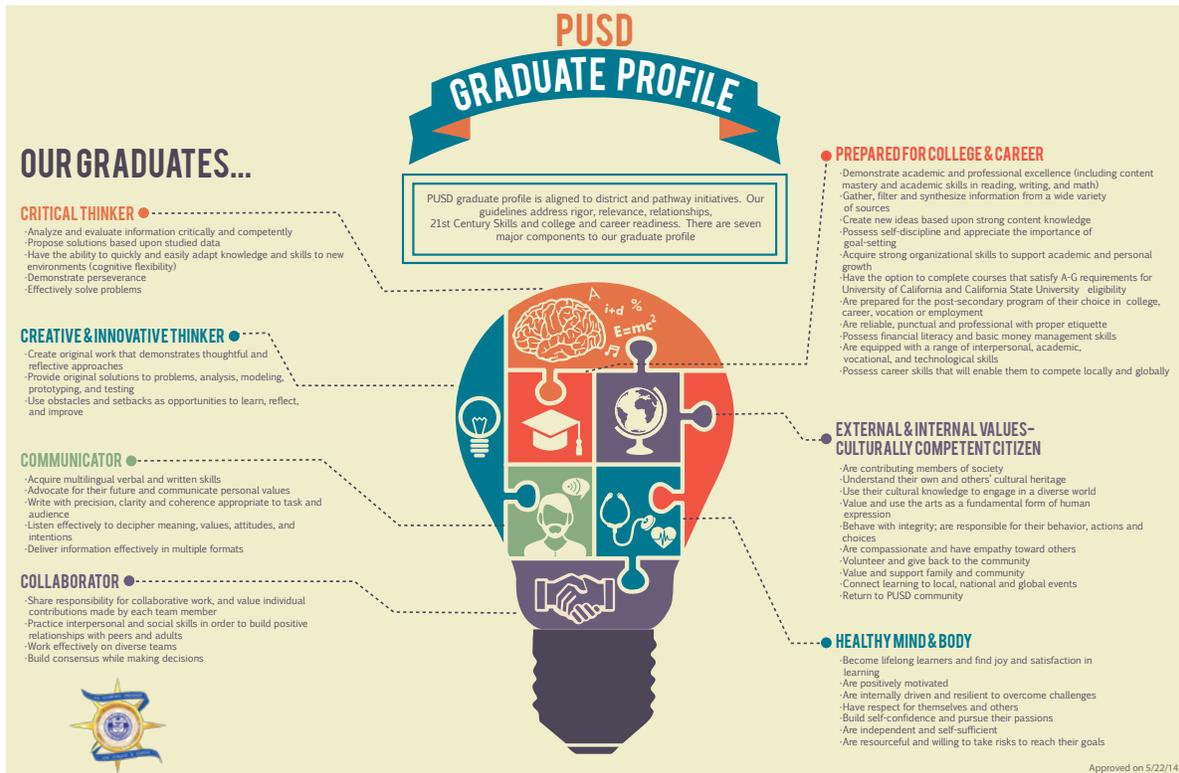
The College and Career Academies maintain a focus on college preparation and career and technical education, which helps students across the district meet the Pasadena Unified Graduate Profile (see Figure 1). This graduate profile was developed based on input from over 800 district and community stakeholders and focuses on operationalizable outcomes for students. To dissect the concept of “college and career ready” and define measurable goals for students to achieve, Pasadena Unified also used the Graduate Profile Quality Criteria Check (Appendix B), a tool from Envision Learning Partners, a technical assistance provider.²⁷ The profile was approved by the Pasadena Unified School Board in May 2014 as part of the district’s strategic plan.²⁸

Once the graduate profile was introduced, stakeholders across the district recognized that three key competencies—research skills, creativity, and written communication—were still not being effectively taught or measured. This was partly because these competencies were not a focal point of the existing curriculum.²⁹ Though seniors in academies had the option to earn graduation distinction (i.e., a merit medallion) by completing a portfolio and defense, this amounted to “only 40 percent of seniors [having] the opportunity to do a research-based portfolio at the end of their senior year.”³⁰ The district administration recognized that they could make small curricular changes to help students meet these competencies—such as requiring a research paper in 11th-grade history or a presentation in 12th-grade science, for example; however, they wanted such curricular shifts to be systemic, and aligned throughout secondary education, rather than isolated in a few courses.

Accordingly, in November 2014, the Pasadena Unified Board of Education moved to adopt the senior defense as a districtwide graduation requirement, starting with the graduating Class of 2019.³¹ Alongside this requirement, students are required to complete at least 40 hours of community service with a nonprofit organization or work-based learning (i.e., job shadowing or internship) and must earn 220 academic credits (including a semester each of health and—starting with the Class of 2021—career and technical education).³² According to district documents, these requirements address 21st-century skills (communication, collaboration, critical thinking, and creativity/

innovation), college and career readiness, global citizenship, cultural competency, and “other attributes for graduates to lead a healthy life.”³³ In adopting this policy, the district signaled its commitment to improving access to high-quality instruction for all students in the district.³⁴

Figure 1
Pasadena Unified Graduate Profile



Source: Pasadena Unified School District. (n.d.). Secondary education (6–12): PUSD Graduate Profile. <https://www.pusd.us/Page/2961> (accessed 05/21/20).

Implementing a Performance Assessment Initiative Through District Policy

After the Pasadena Unified Board of Education passed the senior defense as a graduation requirement for all students, the district decided to use a collaborative approach to implement its new policy. This process included district-led meetings with teachers and other stakeholders to make important decisions about roles and responsibilities. Through these meetings, it was decided that the senior defense would not live in a single class subject. As one district leader described, this was because “[the senior defense] cannot be the responsibility of one set of teachers, and everybody in the organization needs to be accountable for producing these results.”

These meetings also led to the decision that at each school there would be a site coordinator who is responsible for guiding and planning senior defenses. To fill this position, rather than hire new staff, the district added the responsibilities to existing positions. Pasadena Unified initially asked for volunteers at each school. When the district found that librarians typically volunteered for the role, the district added senior defense management to the role of librarians across the district.

To help guide the duties and responsibilities of these site coordinators and ensure that adequate support structures would be in place at each school, district leadership created a year-by-year plan to develop and scale the senior defense from the 2016–17 school year through the 2018–19 school year. (See Figure 2.) This plan included monthly meetings for site coordinators to ensure they were up to date on senior defense requirements and understood these requirements enough to answer questions and help make decisions at the site level. All site coordinators received extra training and compensation for taking on these additional duties. Though this funding originally took the form of stipends (as reflected in Figure 2), site coordinators are now compensated hourly for their time.³⁵

Figure 2
Plan to Develop and Scale the Senior Defense

2016–17	2017–18	2018–19
Site Coordinator Duties and Responsibilities		
<ul style="list-style-type: none"> Attend 2-hour meeting after school once a month Communicate expectations and outcomes with 9th-grade English language arts and 10th-grade world history Become the expert on Graduate Portfolio and defense requirements (including uploading evidence to Naviance, ePortfolio, or another digital platform) Help assistant principal coordinate calibration of scoring with rubrics Communicate with teachers regarding the matrix (including assignments that need to be scored with portfolio rubrics) Work with department chairs to create implementation guide for using senior defense rubrics 	<p>All of the duties and responsibilities of 2016–17, plus...</p> <ul style="list-style-type: none"> Review uploaded materials from Naviance, ePortfolio, or another digital platform with assistant principal and department chairs During extra prep period(s), schedule meetings with all 11th-graders to review portfolios (and create plan of action by the end of first semester) Meet with 11th-grade students who did not meet portfolio requirements at the end of first semester 	<p>All of the duties and responsibilities of 2016–17, plus...</p> <ul style="list-style-type: none"> Schedule senior presentations Organize panel of judges
Site Coordinator Compensation		
<p>Comprehensive High Schools</p> <ul style="list-style-type: none"> \$2,000 stipend per semester 	<p>Comprehensive High Schools</p> <ul style="list-style-type: none"> \$1,000 stipend per semester One release period per 200 students in the 12th grade 	<p>Comprehensive High Schools</p> <ul style="list-style-type: none"> \$2,000 stipend per semester PLUS One release period per 200 students in the 12th grade

Source: Adapted from Pasadena Unified School District, College and Career Academies Department PowerPoint presentation, January 2017.

Pasadena Unified had a 4-year window between the school board passage of the senior defense requirement and the first graduating class completing their senior defenses. During this time, district staff and leaders recognized the need to generate community buy-in for the policy. In response to this need, the district hosted four town hall meetings at Pasadena Unified schools between February and March of 2018 to inform families of the graduation requirement and field any questions about the process. During these sessions, district staff discussed the reasons that Pasadena Unified adopted the senior defense as district policy and highlighted the ways in which such a model might help the district better meet the desired outcomes of its graduate profile. During one of these sessions a district staff member further emphasized the district's commitment to a high caliber of instruction and student learning, noting, "Graduate requirements are the floor. They're not the ceiling."⁵⁶

Though Pasadena Unified took a district-led approach to implementing performance assessments, each secondary school in the district had flexibility in the process to roll out the implementation of the new requirements. For example, one school started offering students the opportunity to defend before their senior year, so that some students would have already completed the requirement before it was fully mandated for their graduating classes. This was done to see what supports students and staff might need once the requirement went into full effect, such as peer mentorship, curricular alignment, and professional learning. While each school ultimately chose to implement the new graduation requirement on its own timeline, with some waiting until the requirement went into effect, all were able to support students through the portfolio process by the beginning of the 2018–19 school year, and all graduating seniors in the Class of 2019 (including those in alternative education and special education classes) completed and passed the senior defense.

Overall, the districtwide senior defense policy aims to ensure that all Pasadena Unified students have equitable access to the high-quality curricula and teaching practices necessary to achieve the skills and competencies outlined in the district's graduate profile. The theory of change for the district policy is that, by establishing high expectations through consistent districtwide implementation of the performance assessment system, teachers, staff, and administrators at the school level will have both the structures and the knowledge to support students' 21st-century learning. As with any major districtwide policy shift, it will take time to fully reach these ends; however, the policy is a commitment to ensuring equitable access to high-quality learning for all students.

How the Senior Defense Works

Senior Defense at Pasadena Unified

A row of desks is lined up facing the front of a classroom, where a projector is queued up. The desks are occupied by a judging panel, among them the school librarian and two other educators from a high school in Pasadena Unified. The panelists wrap up their discussion of the student presentation they have just observed, and then the school librarian steps outside to call in the next student, Maria,³⁷ who is ready and waiting in the hallway.

Maria enters the classroom dressed professionally and stands poised in front of the panelists despite her slight nerves. She is here to present her senior defense, a culminating event of her high school education as a Pasadena Unified student, and her professionalism signals how seriously she takes the experience.

Maria pulls up her PowerPoint with support from the librarian and waits at the front of the room for a cue from her judging panel that they're ready for her to begin her presentation.

She begins by introducing herself and sharing her educational journey. Maria is currently a 12th-grader and has been a student in Pasadena Unified since 6th grade. When she moved to Dallas from Peru at age 5 and skipped kindergarten, she did not speak English. She reflects that it was only once she moved to Pasadena Unified that “[her] life started.” She credits this to her involvement in the Puente program—an extracurricular program designed to support the college readiness of first-generation Latino/a students—and the mentorship of two particular teachers at her high school. “Yes, they are teachers to me,” she reflects. “But they are also my mentors—my father figures. They’ve seen me laugh; they’ve seen me cry.”

After introducing herself, Maria presents her first artifact—a research paper she wrote on the topic of “designer babies,” a genetic concept that touches on both science and ethics. As she presents, she reflects on both the content of her research and what the process of researching taught her about her own identity as a learner, noting that the assignment taught her how to “search deeper” in her thinking. Throughout her presentation, she maintains strong eye contact with the panelists, gesticulates to help communicate her points, and displays a strong grasp over her research topic.

Next, Maria presents her second and third artifacts—a reflection on her experiences volunteering at a local Ronald McDonald House with a group of her peers, and an original dance she choreographed with a group of her peers for a school basketball game. Throughout her reflections, she shares how these artifacts helped her cultivate the district’s graduation competencies of collaboration and creativity, and develop the sort of leadership that has allowed her to take greater ownership in projects in her academic coursework.

To conclude her presentation, Maria shares her plans for the future: to stay involved in her community and to study psychology in a 4-year college to learn “why people talk and think the way they do.” She shares: “All of this, and my artifacts, show that I am ready to graduate.... I’ve gone through those struggles and learned how to conquer them. I can take them into college. College is not an easy path to go in. [My high school] has taught me how to not give up.”

After Maria concludes her presentation, the panelists begin their question-and-answer session, during which Maria continues to demonstrate great mastery over the district's graduation competencies: research, collaboration, and creativity.

When one panelist asks Maria which experiences have helped her develop as such an effective speaker, she adds a personal reflection, saying, "I used to be shy—the girl in the back. I feel like keeping my voice shut and not getting it out there made me belittle myself. I had to learn how to put myself out there. I want to study psych[ology] and help people with suicide problems. If I don't have communication skills, how am I going to help them?"

After the panelists run through their questions for Maria, they ask her to step outside while they deliberate on her score. Immediately, each of the panelists shares that they believe she has clearly demonstrated proficiency in each area of the district rubric, highlighting how thoughtful she was in reflecting on her own growth. After identifying "wow" areas (i.e., strengths) and "wonder" areas (i.e., opportunities for growth) to share with Maria, the judging panel invites her back in to share the good news that she has passed her senior defense with distinction. Maria breathes a sigh of relief and walks out of the room one step closer to her high school graduation.

Maria's senior defense presentation reveals the sort of college- and career-ready graduate that Pasadena Unified aims to prepare through its districtwide performance assessment initiative: She demonstrates a strong command over content knowledge (as evidenced by her research paper), the ability to reflect critically on this knowledge and her personal growth, and the tools to apply her education beyond high school. Performance assessments, such as the senior defense, place an emphasis on assessing higher-order thinking skills, driving high-quality instruction, and aiding in the development of deep content knowledge in order to support 21st-century learning outcomes. With the understanding that such assessments can drive both improved instructional practices and student learning, Pasadena Unified decided that all of its students should go through the senior defense process. In doing so, the district voiced its commitment to ensuring equitable access to high-quality instruction for all students.

Student Work

Building off the graduate profile (see Figure 1), the district identified research, creativity and innovation, written communication/reflection, and oral communication/presentation as the four specific areas in which all students should demonstrate proficiency in order to pass their senior defense. Thus, the portfolio is designed as a space for students to provide evidence that they have satisfied the requirements for the first three of these domains, and the defense is an opportunity for them to demonstrate their oral communication proficiency.

The portfolio

The Pasadena Unified senior defense process culminates for students in 12th grade as they select two to four graded artifacts (i.e., examples of their best work) across different disciplines to include in their portfolio. These artifacts can be from core courses, electives, career and technical education coursework, or other experiences, as long as they are aligned to the first three district

competencies—research, creativity and innovation, and written communication/reflection—and represent students’ highest-quality work from across their high school career.³⁸ Student work included in the portfolio must demonstrate:

1. **Research, as evidenced via a research paper (6–8 pages)**—evidence of the student’s critical-thinking skills, use of evidence to support claims, and critical-reading ability.
2. **Creativity, as evidenced via various student work**—evidence of the student’s creative and innovative solutions, processes, and/or actual product.
3. **Written communication, via a reflection paper (3–5 pages)**—evidence of the student’s written communication skills, ability to reflect on and assess growth, and progress on items 1 and 2. This paper also serves as the script for the oral presentation.³⁹

Throughout the high school experience in Pasadena Unified, students are prompted to store examples of their best work from across their classes in a digital portfolio housed on Naviance, ePortfolio, or another digital platform.⁴⁰ During students’ senior year, they have the option to select their best work from these assignments meeting the critical competencies, or they can decide to generate new work to include in their portfolio during their senior year.⁴¹ They then complete a written reflection that will guide their defense presentation. This reflection essay requires students to examine what they have learned throughout their high school experience more broadly, reflect on the specific skills and content they have learned, and articulate their postsecondary plans.

The defense

After students have finished assembling their portfolio, they are expected to prepare to orally defend their learning to a judging panel composed of teachers, staff, peers, and/or community members. The senior defense is built around the following two components:

1. **Individual presentation (8–10 minutes)**—students select two to four graded documents and present them to a panel of judges. Students are to use well-produced audiovisual aids or media when presenting.
2. **Question-and-answer session (5 minutes)**—students answer questions posed by the judging panel as a demonstration of growth, reflection, and self-evaluation.⁴²

Each student defense is designed to take roughly 15 minutes. After students have completed their presentations and gone through the question-and-answer session with their panelists, they leave the room while the judging panel deliberates on their score to determine whether the student will pass or be asked to resubmit. When the scoring is complete, the student re-enters the room and hears affirmations (wows) and formative feedback (wonders) from the panel before receiving a score: passed, passed with distinction, or revise and resubmit.

Scoring and Feedback

The use of common rubrics across performance assessment systems is understood in the research field as a method for increasing the reliability and consistency of such assessments.⁴³ In light of this research, Pasadena Unified has introduced four districtwide rubrics, each of which is aligned to one of the district’s key competency areas:

1. **Research Rubric** (Appendix C)—students are scored on their argument, citation of sources, evidence presented, organization, and language.

2. **Creativity/Innovation Rubric** (Appendix D)—students’ projects are scored on their point of view, originality, value, style, and reflection.
3. **Written Communication/Reflection Rubric** (Appendix E)—students are scored on evidence of their metacognition/growth, connections made, analysis, organization, and language use.
4. **Oral Communication/Presentation Rubric** (Appendix F)—students are scored on their explanation of ideas and information (through a reflective lens), organization, eyes and body (i.e., eye contact with the audience), voice (i.e., speaking clearly), presentation aids, and response to audience questions.

Accordingly, the district encourages teachers to use the four rubrics to score student work in their classrooms throughout the school year. In addition, site coordinators are required to score the final artifacts students submit for their portfolios using these rubrics. Panelist judges use the Oral Communication/Presentation rubric in scoring the senior defense. All of these rubrics are grounded in research and adapted from existing, vetted rubrics developed by Envision Learning Partners, EdLeader21, and PBLWorks (formerly the Buck Institute for Education). These organizations provide technical assistance for professional learning as well as resources, such as exemplar models of rubrics, to districts and schools implementing performance assessment initiatives. Pasadena Unified’s rubrics were modified by the district administrators, in consultation with Envision Learning Partners, to be more directly aligned with the Pasadena Unified Graduate Profile.⁴⁴ Envision Learning Partners provides ongoing support to the district to further refine these rubrics and ensure they reliably measure student learning.

The senior defense rubrics are designed for panelist judges to take notes on during a student’s defense presentation, so they can then provide specific evidence regarding which indicators and domains the student has met. During the question-and-answer session after each student’s defense presentation, panelist judges are expected to ask clarifying questions about any of the indicators for which they have not marked the student as proficient. After all of the panelist judges have independently scored the defense rubric, the district advises that they discuss their scores with each other by reviewing the rubric domain by domain. Panelist judges should provide evidence not only for points of disagreement between their rubric scoring, but also for the areas in which they agree, to ensure that their scoring is fully calibrated.

For the 2018–19 academic year, district policy dictated that students could *pass* if they demonstrate 50% proficiency in the Oral Communication/Presentation rubric, and they could *pass with distinction* if they demonstrate 100% proficiency. This proficiency is determined based on the collective score that the full judging panel agrees on. The district raised the requirement for the 2019–20 school year, expecting students to demonstrate 75% proficiency to pass (see Appendix G for how this requirement was maintained during the COVID-19 pandemic). According to the district, students will be required to demonstrate 100% proficiency starting in the 2020–21 academic year.⁴⁵

Students who do not pass their defense are expected to revise, resubmit, and re-present their work. When panelist judges decide that a student has not passed the defense, they fill out a Re-Submit Form to provide the student with actionable areas for improvement and next steps. This form includes space for specific and individualized feedback to help make the process of resubmission an opportunity for growth. The following section outlines the systems of support the district has in place for students who are asked to resubmit their defense, as well as general supports that benefit all students and educators in the senior defense process.

Systems of Support

Research suggests that the success of performance assessments depends on how teachers are trained, supported, and engaged and on the structures that are in place to support students.⁴⁶ At the time of this study, Pasadena Unified had completed its first full year of implementing its senior defense requirement districtwide. In preparation for this first year, the district put a number of support systems in place for educators and students and was actively working to deepen those systems, and develop additional supports, in the years to come.

During this study, participants identified structures and resources they felt best supported the implementation of the senior defense. Some of the supports identified began informally during the planning years (2014–18) and developed into more established structures as schools began implementing the senior defense. This includes professional learning opportunities for educators and the establishment of site coordinators. As Pasadena Unified helped secondary schools adopt curricular changes associated with the new graduation requirement, specific needs for student and teacher supports were identified along the way, including accommodations for English learners and students with disabilities. Throughout the planning phase and the first year of the senior defense requirement, many of the systems and structures were enhanced by funding and technical assistance from external organizations.

As Pasadena Unified helped secondary schools adopt curricular changes associated with the new graduation requirement, specific needs for student and teacher supports were identified along the way.

Teacher Supports

To ensure that students across Pasadena Unified would be well and equitably prepared to meet the demands of the districtwide graduation requirement, the district provided professional learning opportunities to train the secondary teachers and staff responsible for supporting students through their senior defense process. As described below, these opportunities existed for specific grade-level and subject teams, in addition to the districtwide supports available to all secondary school teachers and staff.

Since the passage of the senior defense as a districtwide graduation requirement, all high school teachers have participated in two professional learning days in which they were introduced to the senior defense process and then worked through the corresponding district rubrics and graduate profile.⁴⁷ Pasadena Unified has also held a number of professional learning sessions for teachers and staff who work with students in earlier high school grade levels, so they can support students to successfully complete the new requirements in advance of their senior year. For example, 9th-grade English teachers had a full-day professional learning session focused on how to teach students to evaluate various sources and determine the strength of a given source. Because all 9th-grade English teachers took part in this professional learning, all 9th-grade students had a teacher who had engaged in this senior defense–specific professional learning. The district also hosted a professional learning day for 10th-grade history teachers, focused on engaging with the Research Rubric (Appendix C).

To help support teachers, the district also received technical assistance from Envision Learning Partners, who specifically worked with teachers to develop a shared understanding, or common standard, around the use of the district’s rubrics. This process is also known as calibration. The district collaborated with Envision Learning Partners to kick off its first calibration exercise, which took place in October 2018 as the senior defense requirement first went into effect. This was accomplished through a districtwide high school professional learning day with the explicit intention of calibrating graduate defense presentations in order to drive quality at Pasadena Unified (see “Calibration Exercise for Teachers and Staff”). The professional learning event was split across two campuses but brought together teachers from all five high schools so they could calibrate around their use of the Oral Communication/Presentation rubric for the senior defense as well as the Research and Creativity/Innovation rubrics for the portfolio. All teachers completed a calibration exercise for the Oral Communication/Presentation rubric together, and teachers were also assigned to calibration breakout sessions for the Research rubric or Creativity/Innovation rubric, based upon their teaching content area. At the time of this study, this was the only districtwide calibration exercise teachers and staff had experienced. The district leadership team, however, recognizes the importance of calibration and plans to continue working with school campuses across the district to address more targeted, site-specific teacher needs.

Calibration Exercise for Teachers and Staff

Teachers and staff from across Pasadena Unified filter into a high school multipurpose room, cordially chatting as they fill their plates with breakfast food and take a seat among their peers. It is October 2018, and these educators are gathered together for a daylong, districtwide calibration day—the professional learning event to kick off the district’s inaugural year of implementing the senior defense graduation requirement.

At one of the two campuses hosting this event, the morning begins with an introduction from Pasadena Unified’s assistant superintendent of secondary education. She frames calibration as a means to work as a “community of learners” to standardize practices districtwide. Given the unique context and specialties of each campus (two are combined middle and high schools, four have College and Career Academies, etc.), she emphasizes the importance of calibration as a driver of quality throughout the senior defense process. She also reminds the room that the district “wants our students to be able to present, reflect, and communicate orally, visually, and in writing,” as “these skills will help them compete in college.”

After this opening frame for the day, a technical assistance provider from Envision Learning Partners further frames the importance of calibration by showing a video titled “What Is the Purpose of Calibration?” She asks educators in the room to pay close attention to what teachers in the video are doing and saying as they score a student’s presentation. When the video is over, she asks, “What is the purpose and the benefit of calibration?”—a question they are to discuss in a pair-share format with their neighbor before engaging in a full-group share-out.

Before the group moves on to the next agenda item, which is to practice scoring senior defenses, the technical assistance provider encourages everyone to approach the process with an “inquiry mind.” She then leads the educators through note-taking on the district’s rubrics while listening to students present—a process she admits can be challenging at first, but she reassures them it will

become easier to do with experience. Teachers then have an opportunity to ask questions, and they request clarity on how to score students during this first academic year, when they must meet only 50% of the requirements on the rubric to pass.

Next comes the time for teachers and staff to apply their learning. A student enters the room, and three preselected teachers and staff members are identified as her judging panel. The remainder of the participants are encouraged to listen and use their rubrics as if they, too, were members of her judging panel. After the student completes her senior defense, including the question-and-answer portion with the panel, the technical assistance provider leads the panel through a mock deliberation to see how aligned they are in their assessment of her presentation against the rubric.

Throughout this process, the technical assistance provider highlights the need to go through the rubric domain by domain and discuss areas of both agreement and disagreement with the other panelists before determining a student's final score. One teacher observing the panel asks how to assess language proficiency using the rubric when a student learning English presents in Spanish. The technical assistance provider responds by saying the rubric can still be used because "we are about professional language—the language itself doesn't matter."

Over the next several hours, teachers cycle through three more student defense presentations in smaller breakout sessions across campus. In each, they practice taking notes using the rubrics, ask students questions about their defense, and reflect on the panel experience as a group.

To close the day, a Pasadena Unified staff member brings the group of educators back together by asking them to share their "wows" and "wonders" for the day, mimicking the same process judging panels use to provide feedback to students after their defense. Overall, while the group acknowledged there is still work to be done to calibrate scoring as the senior defense requirement goes into full effect, they generally agree that the senior defense is a valuable experience for students and for themselves as educators. Speaking more specifically to the professional learning day and its focus on calibration, one teacher even says, "I'm glad I came. [This] was one of the best in-service days I've ever had."

In addition to professional learning opportunities provided by the district, teachers received support with the implementation of the senior defense from the designated site coordinator at each school. While teachers took responsibility for making sure students had work to include in their portfolio (a research paper, creative piece, and reflection), site coordinators took on the overall management of the senior defense process, including planning the senior defense days. Part of the site coordinators' responsibilities also included communicating with teachers and department chairs to help create alignment between curricular offerings and expectations on the senior defense rubrics.

School Administrator Supports

While site coordinators at Pasadena Unified schools supported teachers throughout implementation of the senior defense, they were also seen as a support for school administrators. One principal interviewed for this study said that choosing one person to be in charge from the beginning helped his school implement the senior defense as a requirement. He also explained that his site coordinator and assistant principal worked together and "really pushed and organized and did all the work" to implement the senior defense.

On the district side, Pasadena Unified helped school administrators prepare for this role in several ways. First, site administrators participated in the same professional learning opportunities as teachers, allowing them to have shared learning experiences with staff. One principal in particular described the October 2018 professional learning day—in which students defended their portfolios and educators calibrated their use of rubrics to score student presentations—as so helpful that he will try to maintain it as a structure at his school, in the event that the district no longer provides it as a support.

School administrators also participated in monthly site coordinator meetings and district administrator meetings. These meetings supported school administrators leading up to the implementation of the graduation requirement, providing information about the senior defense and allowing school leaders to talk with their colleagues about how they were approaching implementation. One school leader shared that “having that time to reflect and to talk to one another about the level of implementation—where they were at—in preparation for this first year was important.” He also appreciated that the district had these “structures in place to help facilitate and keep the dialogue going.”

Lastly, Pasadena Unified supported school leaders by holding students accountable for completing their defenses, communicating that it was a requirement for graduation, not an option. In some ways, this took the pressure off of school leaders because it was not seen as their decision. For example, one school leader explained how she felt this communication helped at her school, particularly for students who, by the spring, had still not completed their senior defense. She said the district “helped us put the teeth in [the requirement]” so that students understood it was not the assistant principal and the principal just “arbitrarily making these decisions.”

Student Supports

In addition to supporting administrators and teachers, Pasadena Unified recognized the need to support students so they could be successful in their completion of the senior defense requirement. Given the early stages of this work at the time of this study, Pasadena Unified was still in the process of standardizing support structures for students going through the senior defense process. However, several practices emerged at the school level and the district level that supported students through the first year of the new graduation requirement.

Greater curricular alignment was one approach that Pasadena Unified saw as a support for all students. For example, the professional learning opportunities provided to secondary school teachers across grade levels and subject areas was intended to drive curricular alignment to the senior defense rubrics and ensure students would be prepared to complete their portfolio and their defense. In addition to curricular alignment in high schools, at the time of this study, the district was working toward greater curricular alignment in earlier grade levels as well. For example, district leaders and school principals were discussing the possibility of introducing performance assessments in which students could defend their learning (what they would call “mini defenses”) in the 5th, 8th, and 10th grades, so students could develop and practice the skills associated with the senior defense much earlier than their senior year. By doing this, the district aims to ensure that all students throughout their educational experience have opportunities to develop skills associated with the senior defense, such as research and oral presentation skills, while also ensuring that teaching is aligned to support their cultivation of these skills.

While curricular alignment is an ongoing process to support students throughout their educational journey, Pasadena Unified also created a number of supports for students as they go through the senior defense process itself. For example, schools in the district are working toward creating systems to accommodate groups of students, such as students with disabilities and English learners, who might require additional scaffolding to successfully engage in the senior defense process. Pasadena Unified staff have advised school sites to allow students receiving special education services to submit fewer artifacts in their portfolio and have modified conditions for their defense presentation (e.g., shorter presentations, teacher-only judging panels), depending on their Individualized Education Program (IEP) or 504 support plan. The district also advises that school sites make similar accommodations for English learners, such as allowing students to partially defend or answer questions in their native language. Making these accommodations more consistent across schools is one of the primary priorities for the district as its performance assessment initiative continues to mature.

Students completing the senior defense in the 2018–19 school year also had the opportunity to do a trial run of their defense. These “mock defenses,” as they were called, were hosted by the district in April and May 2018 and were offered to students in the graduating Class of 2019 who volunteered to present as juniors as a way to practice for their senior defense.⁴⁸ Providing these practice spaces gave students an opportunity to become comfortable with the academic and social-emotional demands of the defense presentation.

In addition to these practice defenses, all students completing the senior defense were given multiple opportunities to pass their official defense presentations. If students did not pass their defense on their first attempt, they did not receive a failing grade. Rather, they were asked to resubmit, and would work closely with a teacher at their school to receive ongoing feedback on how to improve their defense for their next attempt, until they were able to pass (a common practice for performance assessments). Though some schools allowed students to complete their defense before their senior year, the first districtwide opportunity for seniors to defend their learning occurred in fall 2018, giving students adequate time to work through feedback before the end of the school year, if they were asked to resubmit. Site coordinators also identified students in need of additional support and worked with the district to provide targeted supports for those students. Lastly, district leaders decided that students who do not pass their senior defense before graduation day are allowed to walk at their graduation ceremony but will receive additional support through the summer until they are able to pass.

Funding and Technical Assistance

To date, Pasadena Unified has primarily used philanthropic funding and private donations to sustain the costs associated with the senior defense. This included a grant from the Assessment for Learning Project (ALP) for a project the district was engaged in with Los Angeles Unified School District, Oakland Unified School District, Envision Learning Partners, ConnectED, and the Learning Policy Institute. The ALP grant was co-funded by the William and Flora Hewlett Foundation and the Bill & Melinda Gates Foundation and aimed to support the development of each participating district’s performance assessment initiative. Through this grant, Pasadena Unified received additional technical assistance from Envision Learning Partners and ConnectED, as well as funds to support the district’s professional learning focused on performance assessments.

Pasadena Unified has also received private donations to support its professional development for teachers and staff. For example, the full-day professional development event in October 2018 was sponsored by the California Credit Union, which provided food and beverages for participants throughout the day. According to district leaders, private sponsorship is typical for professional development days in Pasadena Unified.

Though philanthropic and private funds were used to support the implementation of the senior defense, the district is prepared to sustain the initiative using general funds, if needed. For example, Pasadena Unified included the senior defense in the district's Local Control Accountability Plan (LCAP) as a key indicator of college and career readiness. As such, district leaders have allocated Local Control Funding Formula (LCFF) funding to support site coordinators leading the senior defense, who provide direct services to classes and targeted students (such as students from low-income families, foster youth, and English learners).⁴⁹

Conditions That Support the Implementation of a High-Quality Performance Assessment Initiative

Throughout the course of our research in Pasadena Unified, we identified a number of conditions that supported the adoption of a districtwide graduation requirement utilizing performance assessment. These include a supportive policy and practice environment, a strong vision and district-led policy, access to technical assistance providers, multiple and varied opportunities to see performance assessments in action, and a phase-in plan for implementation. These conditions helped the district build an infrastructure conducive to performance assessments in Pasadena Unified and helped develop the capacity for student and educator supports at the classroom, school, and district levels.

A Supportive Policy and Practice Environment

As Pasadena Unified worked toward the adoption of performance assessments, a supportive policy and practice environment aided its efforts. In the years leading up to the implementation of the senior defense, district leaders were keenly aware of broader policy shifts related to standards and assessment within the state of California, and the opportunities for flexibility those shifts created within their district. At the same time, a growing number of educators within Pasadena Unified wanted to change instruction and assessment practices, creating an opportunity for curricular reform aimed at helping students develop 21st-century skills (including communication, collaboration, critical thinking, and creativity/innovation).⁵⁰ This section describes the specific manner in which this policy and practice environment paved the way for a districtwide senior defense.

District leaders in Pasadena Unified stayed informed about opportunities within California's educational policy environment

District leaders said that before Pasadena Unified made the decision to adopt performance assessments, they, and some of their colleagues, began to think differently about how to assess student learning. This thinking was supported by the overall educational climate within California, as the state adopted the new Common Core State Standards, or CCSS (a set of standards focused on 21st-century learning), and suspended the California High School Exit Exam (a statewide high-stakes, largely multiple-choice test required for graduation).

While these shifts did not lead directly to the adoption of performance assessments on their own, Pasadena Unified staff interviewed for this study noted that district leaders' attention to the overall policy environment, along with their understanding of the opportunities these shifts afforded, played a critical role in the success of rolling out a new graduation policy. For example, one district staff member described the efforts of district leaders to stay informed about educational policy within their state, saying, "When California switched over to the Common Core, we [district staff] were following a lot of what the potential changes would be." She also recalled that Pasadena Unified's chief academic officer at the time was "deeply involved with the ACSA [Association of California School Administrators]," which held meetings to discuss the shifts in assessment policy and the movement toward performance assessments.

In addition to being informed about general policy shifts and involved in specific conversations about performance assessments, key district staff at Pasadena Unified had a clear understanding of how the policy environment in California could create opportunities within the district. Reflecting on these opportunities, one district-level administrator said,

The good thing about being in this state [California] is that the accountability system is not as punitive as in some other states. You have a little bit of freedom and a little bit of time, even though there's a sense of urgency to make sure that all students are achieving at a high level. We have the time and space to put all these key pieces in place so that we have a clear system and our school district is performing at a high level.

Having “the time and space to put all these key pieces in place” supported Pasadena Unified in developing an implementation plan for the new senior defense graduation requirement that could be rolled out over the course of 4 years. This plan, as discussed later in this section, aimed to ensure that adequate supports were in place for students and educators before it became a requirement for all students to complete a senior defense before graduation.

Overall, because some district personnel were informed about state policy shifts and opportunities, they were able to think critically about what that could mean for their unique district context, including the realization that they could have time to build capacity and prepare if the district chose to move in the direction of performance assessment. Importantly, however, this choice to adopt a senior defense did not mean students would be exempt from taking traditional standardized tests at multiple grade levels, including 11th grade. The purpose of those assessments differed from that of the senior defense, and the senior defense plays an important role in the district's balanced system of assessment.

Curricular reform efforts in Pasadena Unified occurred alongside the development of a senior defense requirement

As district leaders participated in conversations about broader state policy shifts and their relation to performance assessments, many educators within Pasadena Unified were already pushing for curricular change. Though the district had created eight College and Career Academies that utilized performance assessments, those academies only served a subset of students in the district. School and district staff interviewed for this study said that they saw the adoption of the CCSS as an opportunity for the district to think critically about the curricular offerings districtwide, including how performance assessments could fit in. For example, one district leader described how she felt the CCSS supported 21st-century learning and enabled the use of performance assessments. Expanding on how these efforts occurred together and complemented each other, she said:

Whenever we select resources and things like that, [we are] ensuring that they are vetted through the lens of 21st-century learning and performance.... [I came] into this position with the district adoption of Common Core curriculum. And I believe that Common Core curriculum really already points students in that direction. So, it was something that we all very much, in coming to these roles, believed in and saw as an embedded part of what kids should be doing, regardless of whether or not there was a [graduate] profile that articulated it, or if there was going to be

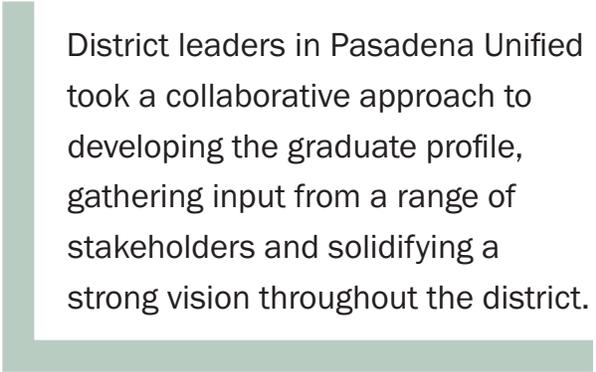
a [senior] defense. I think this is the kind of learning that we wanted to happen. And it was just a very perfect match, and really, I mean, they happened alongside each other.

What emerged from these simultaneous efforts was a pedagogical environment aimed at supporting students to develop 21st-century skills. While schools in Pasadena Unified are still focused on continuously improving practice in response to curricular shifts, some school and district leaders identified these curricular changes as a condition that enabled students to complete their senior defense. For example, one district leader described how the district’s adoption of the CCSS facilitated a shift in classroom practice to include more work around writing and research. As she said, this directly supports students in successfully completing their senior defense because “a lot of what the kids are seeing and doing around the artifacts that they’re using in their [senior] defense have really been supported all the way along with what the new expectations are in their ELA [English language arts] classes, or in their science and history classes.” Because the district intentionally aligned curricular reform efforts with its adoption of performance assessments, it created a pedagogical environment conducive to the implementation of a senior defense requirement.

Based on our analysis of interview data for this study, the timing of state and district policy shifts appears to have created opportunities for alignment between new curriculum and assessment practices, laying the groundwork for a districtwide senior defense graduation requirement and a pedagogical environment in which students could develop 21st-century skills. The next section further describes how district policy played a role in the development and implementation of a performance assessment initiative in Pasadena Unified.

A Strong Vision and District-Led Policy

While an awareness of statewide policies and an overall shift toward 21st-century learning helped pave the way for the senior defense in Pasadena Unified, the development of a graduate profile and the board-approved graduation requirement had a direct impact on the districtwide efforts to implement the senior defense. District leaders in Pasadena Unified took a collaborative approach to developing the graduate profile, gathering input from a range of stakeholders and solidifying a strong vision throughout the district. This graduate profile was then codified with the passage of the senior defense as a graduation requirement, requiring that all schools make the changes necessary to prepare students for a senior defense and to ensure that all students participate.



District leaders in Pasadena Unified took a collaborative approach to developing the graduate profile, gathering input from a range of stakeholders and solidifying a strong vision throughout the district.

Collaboratively developing a graduate profile created a strong district vision

While the graduate profile was in development, Pasadena Unified gathered input from over 800 stakeholders, including educators, parents, students, and other community members. One district leader who was involved in the process of developing this vision described it as “packaging

up what the community had come up with in terms of what they want to see in our graduates” and “putting that into a coherent document.” By turning the voices of the community into a set of desired outcomes for all students, the district created a unified vision representative of multiple viewpoints and had many advocates for the changes they were trying to make, including the new graduation requirement.

Multiple district leaders we spoke with said the collaborative approach to developing the graduate profile helped support the implementation of the senior defense requirement. In describing the importance of gathering input from diverse groups, one district leader even recommended that other districts looking to implement a similar policy use the same process as a model, saying, “I think that when you begin, you need to be really strategic in who comes to the table in that initial planning group, that you have representation from curriculum, from student groups, from school-based leaders, from teacher leaders, from academies, all of these different components. I think that’s something that [district leaders in Pasadena Unified] did really well.”

Bringing diverse voices into the process and including their input in a unified graduate profile helped create the visionary alignment needed when trying to enact a board policy. Another district leader described in an interview how the collaboration upfront helped to garner support before the graduation requirement was considered. He described the process and said:

I think it’s important for those closest to the work to have a voice in all of this, and in this particular case, the students and the teachers [should have a voice]. So, we did a lot of work; we included them at every phase of the planning, [and] we also included the parents as well. As you do your political mapping, you think about who could derail the effort. We targeted those people. We got them involved in everything that was going on around planning and multiple conversations in public at the board meetings, focus group meetings, and so forth. We were able to get to a point where, by the time we brought it to the board, there really wasn’t much opposition.

By engaging a diverse group of stakeholders in developing a shared vision, district leaders were able to address concerns before they began the process of solidifying the graduate profile in board policy.

A board-approved policy enabled districtwide adoption

The school board played a key role in the development of the graduate profile and senior defense requirement. This collaboration between Pasadena Unified and its school board was particularly important, as it led to districtwide adoption of the senior defense, rather than an opt-in approach for schools and teachers. One of Pasadena Unified’s district leaders provided an example of how including the school board in this collaborative process helped to embed performance assessment into the overall vision and mission of the district. He said:

The process that we went through to develop our theory of action, and I call it, “The Board’s Theory of Action for Change,” allows them to really have a better understanding of how things should function, how policies should be put into place that would allow us to continue the important work that we’re doing. Having a theory of action from the board level allows them to rally around an approach but also to utilize this theory of action if there were to be a superintendent change [and

the board needed] to then hire a new superintendent. So in other words, if you're interviewing someone for the job and they're philosophically opposed to the theory of action that's in place, you wouldn't want to hire that superintendent. You'd want to hire somebody who would come in and say, "Well, this is great. I believe in this, and I want to continue this work."

The school board's involvement went beyond participation in the development of the vision. Board members also pushed the district's thinking about what was possible with the shared vision and asked critical questions about the graduate profile. One district leader we spoke with recalled that "the school board said, 'Well, [the graduate profile] is great. But if it doesn't get measured, it doesn't get done. So how will you assess that students are actually meeting, or are embodying the skills of, the graduate profile?'" This questioning led to the district's decision to implement a senior defense as a way to measure the skills named in the graduate profile. The school board then passed a policy to make this a new graduation requirement for all students.

Making the senior defense a districtwide graduation requirement was an intentional move to ensure all students would have access to an instructional environment that would prepare them to graduate with the skills outlined in the graduate profile. This move also signaled to educators and students that the district was serious about supporting these changes. For example, one teacher described how the board's policy showed her that this was a change she should care about, saying, "Once it became a requirement to graduate, and it came from the higher-ups, it was just like 'OK, now everybody is on board. Everybody's going to do it.'" One district leader we spoke with was also clear that she did not feel that simply complying with policy was what made the implementation of the senior defense successful. She said:

One of the biggest reasons why this was so successful isn't necessarily because we're all being compliant to [the policy], but because we created the policy, it was public. It went before a board. A big to-do was made about it because it is a big to-do. And I think that when you put yourself out there, those stakes are pretty high, and you have to follow through.

In other words, because Pasadena Unified was public about the changes, district leaders put themselves out there to the community and showed they were serious about making changes to support the implementation of the senior defense.

Access to Resources and Technical Assistance

At all stages—from the development of a graduate profile to the first year of districtwide implementation of a senior defense 4 years later—Pasadena Unified staff sought support from performance assessment experts. This support varied over the years, but often included shared resources such as exemplar models from other schools and direct technical assistance for professional learning. Evidence from our case study shows that these supports helped to shape Pasadena Unified's senior defense, build systems and structures for implementation, and even help the district to build support for the initiative among stakeholders.

Pasadena Unified stakeholders learned from exemplars and models of performance assessments

As district leaders in Pasadena Unified explored the idea of adopting a senior defense graduation requirement, they first looked to other schools and education reform organizations that had a similar vision for 21st-century learning. In their search, they sought to learn from other school systems and organizations utilizing performance assessments. One district leader explained that, as a district, they “were really just trying to figure out what does this look like, and who’s doing it well?” As she described:

[Pasadena Unified was] pretty open to this idea and concept of performance [assessments], but we had no idea what it would look like, and how in the world we would monitor it or assess it at the end. So, a lot of it was us staying in touch with current things, doing work with ConnectED, doing work with the Stanford Center for Opportunity Policy in Education, just following a lot of these organizations that were really willing to try and design and redesign. And so it kind of came together when we started looking at 21st-century learning skills, with the framework from P21, and the Common Core together, and saying, “OK, so if these are the skills and expectations within the standard, and this is what 21st-century learning should encapsulate, how does that merge into what a classroom experience looks like for kids? And then what does it look like if they were to demonstrate that?” So we started doing a lot of inquiry as our own leadership team, exploring project-based learning.

By drawing on what other organizations and schools had done around performance assessments, Pasadena Unified began to shape what a districtwide performance assessment would look like in its own context. Pasadena Unified also learned from other districts and schools in CPAC, including from Los Angeles Unified School District’s work implementing Linked Learning pathways. As the idea of a senior defense became more concrete, the district also sought out specific, exemplar resources to aid it in the development of systems and structures that support performance assessments. This included example rubrics from PBLWorks that the district was able to use as a starting point for its own rubric development.

Models and exemplars of senior defenses at other schools also supported the implementation of the senior defense in Pasadena Unified. Several district and school staff we interviewed for this study referenced videos the district received from Envision Learning Partners as key resources that supported their understanding of performance assessment. These videos featured students at an Envision school conducting their senior defenses. Watching these videos was described as “a lightbulb moment” by one district leader, as she said they caused her to “realize that every student needed to do this [performance assessment].” These videos were also used by school and district staff to help articulate the vision for what the district was trying to achieve, a messaging tactic that one site coordinator used with her students when introducing the new graduation requirement as well. As she explained, these videos were key to her own understanding, so she thought it would prove useful to show students as well:

I went to a lot of meetings, and I had a lot of questions about what exactly they were asking for. What did it look like? And there are two things that I did that helped explain it to me, and that was looking at the videos online, from Envision.

That really crystallized it for me. So, I always have kids watch those first, because I feel like that explained so much to me. [Second was] just working with the kids, and seeing them go through the process, and just doing it with a couple [of them]. The students were ... understanding that we were learning together, and that really helped.

Overall, Pasadena Unified staff utilized resources from other schools, networks, and education reform organizations to educate themselves about performance assessments and articulate their vision of the senior defense to key stakeholders. By building off of preexisting materials, such as the PBLWorks rubrics, and using video examples of senior defenses at other schools, Pasadena Unified staff were able to ground their efforts in existing practices and create understanding among educators and students.

Pasadena Unified staff received direct support from technical assistance providers

Educators identified direct support from technical assistance providers as a factor that specifically supported the implementation of the senior defense graduation requirement. Pasadena Unified has a history of working with technical assistance providers and received assistance from these providers in developing its graduate profile and planning professional learning for educators. In describing the impact this technical assistance had, one district leader said, “A huge piece was the assistance we received from the technical assistance providers.... The whole process made sure that we actually had better [student work] products, which was really critical.”

District and school staff alike named the direct support they received from Envision Learning Partners as a condition that enabled the development of the senior defense. Overall, this support followed the same theory of action that Envision Learning Partners uses with other schools and districts across the country: Define the graduate profile for the learner, design a performance assessment that measures the graduate profile, and implement pedagogies and school structures that lead to success on that performance assessment.⁵¹ As Pasadena Unified developed the graduate profile before it went before the board for approval in 2014, district staff worked closely with Envision Learning Partners, using resources such as exemplar graduate profiles from other districts to better understand the purpose of such documents. Once Pasadena Unified had developed the vision and idea of a senior defense, Envision Learning Partners helped facilitate conversations with stakeholders to start planning what the senior defense would actually look like in practice. One site coordinator explained that Envision Learning Partners would come to Pasadena Unified once a month to help the district “figure out how to make this vision come to life.”

This hands-on capacity building continued through the first year of implementation of the districtwide graduation requirement (in 2018–19). Most notably, Envision Learning Partners directly supported Pasadena Unified in developing a full-day professional learning session at the beginning of the 2018–19 school year that included calibration exercises and then allowed educators to practice their new skills as they watched 12th-grade students present their senior defenses in real time. This guidance supported teachers in developing the skills needed to implement performance assessments and provided an opportunity for educators to see performance assessments in action during the professional development day—a key activity that enabled some educators to see the value of the senior defense if they had not already. For example, one school leader described not being sold on the idea of the senior defense until he sat on a panel and saw two of his students present during that professional development day. Though ongoing opportunities

for educators to come together for professional learning and calibration are common for schools and districts using performance assessments,⁵² this event occurred just one time in Pasadena Unified. However, the district recognizes it as a valuable part of its process and is hoping to continue offering additional learning opportunities like this in the future.

Overall, Envision Learning Partners' expertise in performance assessments and its knowledge of how to support schools in developing capacity for implementing this type of assessment helped create a hands-on learning experience grounded in practice. Though it only occurred one time, this professional learning day was identified by almost everyone interviewed as one of the most critical supports they received in the process of implementing the senior defense.

Multiple, Varied Opportunities to Observe Performance Assessments in Action

During the development of Pasadena Unified's senior defense, district leaders, school leaders, teachers, community members, board members, and even a city council member had opportunities to see students engage in performance assessments. This occurred both within and outside of Pasadena Unified. Some school and district leaders reported that observing students in other districts helped them see the value of a senior defense, while preexisting structures, such as the College and Career Academies, helped demonstrate the sort of internal district practices that could be scaled districtwide.

Observing performance assessments in other districts helped Pasadena Unified educators see the value of the senior defense

Early on in the development of the districtwide senior defense, some school and district leaders in Pasadena Unified were able to visit an Envision school to observe students conducting their senior defenses. Multiple educators interviewed for this study identified these observations as a powerful experience that showed them not only the feasibility of implementing a performance-based graduation requirement, but also that the type of deep learning occurring in those schools was not yet widespread in Pasadena Unified.

As part of the partnership with Envision Learning Partners, Pasadena Unified was invited to send school and district leaders to visit an Envision school in northern California multiple times during the 2013–14 school year. One district representative participating in this study shared how powerful it was for her to see students reflecting on their own learning. She also shared that the experience helped her see that the goal of the senior defense was attainable: “When you talk about the millions of pieces that go into making that end product, it’s overwhelming. But when you see the end product, you’re like, ‘OK, it can be done. It can be done.’”

One school leader who was also able to visit an Envision school during the 2013–14 school year described how the experience led him to compare what he saw there to what was occurring at schools within Pasadena Unified. He said:

When I went to [the Envision school], they do the sophomore presentation, and there was a young lady who did an Algebra I project [about graphing]. The problem was: OK, so you get this cup from Starbucks that’s \$12. Then it only costs you 10 cents to refill. At what point are you going to break even, and when does it make

sense to buy this, and does it even make sense? I was sitting there the whole time thinking, “I can’t tell you one class on this campus where they’re doing something like that with math, where they’re applying it.”

Because this school leader was able to see performance assessments in action at another school, he saw the value of implementing the senior defense at his school and the positive impact it could have on teaching and learning in the classroom.

Preexisting academies allowed stakeholders to see performance assessments already occurring in Pasadena Unified

According to district and school staff, Pasadena Unified’s eight College and Career Academies provided evidence that some students were already achieving positive outcomes from instructional environments utilizing performance assessments. These outcomes, which included development of research and presentation skills, showed educators, parents, and other stakeholders what an educational experience aligned to the new graduate profile could look like. It also

All students should have the opportunity to engage in learning that is more meaningful, connected to students’ interests, and applicable to the real world.

demonstrated that all students in the district should have the opportunity to engage in learning that was more meaningful, connected to students’ interests, and applicable to the real world.

One district leader noted that once Pasadena Unified developed a graduate profile, district staff “were able to really go back and see that the students who are in [the College and Career] Academies were demonstrating all of these skills because of the capstone project [and] because of the internships that they did.” This was an important realization that also led the district to think about how to make these learning environments accessible to more students. The same district leader also explained that seeing positive outcomes for students in the College and Career Academies—outcomes that were aligned to those in the district graduate profile—made her realize that only some of the district’s graduates were being held to that standard. One school leader expressed a similar sentiment, saying, “If this is good for this group of students, it should be good for all students.”

Prior to the districtwide adoption of the senior defense, parents were able to see firsthand, via community information sessions, the positive experiences students had in academies. For example, a district leader described an advisory council meeting she attended in which the new senior defense was a topic of discussion among parents:

Our parents ... had, I think, some bigger fears and concerns than probably some of the students. And I was really impressed that in one meeting ... a parent of a foster student stood up and said, “My child has already gone through this and the accommodations were in place. And it really gave her a feeling of self-confidence that she didn’t have before.” And so that kind of alleviated some of the, I would say, anxiety that was in the room from the parents that were on the district advisory council. Because this has really been the first time when it was going to happen

for 12th-graders, so some of [the parents] were really worried about it. And I really appreciated that she stood up and said that. And they said to her, “Well, how is that possible, because we’re just doing it this year?” And she said, “My daughter ... [has] been in the academy program, and that’s what they do.

As this example demonstrates, parents were able to share positive experiences their students had in completing performance assessments similar to the senior defense because the students in College and Career Academies were already engaging in similar practices.

As the district rolled out its new senior defense graduation requirement, these academies also provided structures to build on when scaling the use of performance assessments. For example, teacher collaboration was identified as a necessary component of how the College and Career Academies operated, which indicated that non-academy educators would also need collaborative structures to implement the senior defense. One district leader described the academies as “a pretty key structure” and said they “have been leaders in a lot of this work,” explaining she thinks this is because the academies “by design had a natural structure in place for teacher collaboration, for expectations that were beyond just what we’ve seen in traditional classrooms.” At the time of this study, Pasadena Unified was still in the process of building out supports for teacher collaboration beyond the academy structure. However, teachers within academies talked about how the structure facilitated collaboration, suggesting that the district as a whole could benefit from adopting some of the practices in a broader context.

A leader from one of Pasadena Unified’s high schools with multiple academies also saw the existing academies as an important precursor to the entire school implementing the senior defense. In describing his school’s experience implementing the senior defense as a graduation requirement, he said,

I think what we’ve realized is that we have pockets of this [performance assessment]. For us, I think the big help has been the academies. Having that structure in place, they were already doing a lot of this work before [the senior defense] was rolled out. I think that having that as a foundation and having them as a model ... has eased the transition for students who aren’t in the academy and haven’t been used to this.

Some students also mentioned that knowing other students in College and Career Academy classes helped to ease their transition, because they knew they could ask for advice from those students, who had already experienced work akin to the senior defense. Having the academies in place, however, was not something that directly helped all students, and many students were still in the process of learning the ins and outs of this new requirement.

Overall, the existence of College and Career Academies within Pasadena Unified helped to lay the groundwork for the eventual development of a districtwide senior defense initiative. By having opportunities to see students engage with performance assessments both within their own district and while visiting other districts, school and district leaders in Pasadena Unified had something to build from and a clearer idea of what to aim toward when implementing the senior defense.

A Plan for Implementation

Pasadena Unified decided to roll out the implementation of the senior defense over a 4-year period of time, with the goal that all 12th-grade students in the district would complete a senior defense by the end of the 2018–19 school year. To achieve this goal, district leaders in Pasadena Unified recognized the need to ensure that school leaders, educators, and students throughout the district had a clear understanding of the requirements and the purpose of the senior defense. The district therefore hosted professional development opportunities for teachers and planning meetings for school administrators and site coordinators, the latter of whom were tapped to lead implementation of the senior defense at the school level. This involved managing the senior defense rollout and supporting school administrators, teachers, and students as they collectively engaged in the senior defense process for the first time. The district’s rollout approach also created flexibility at the school level, allowing each school to decide how and when to fully implement the senior defense. While the educators interviewed for this study generally agreed that this flexibility played a positive role in the implementation of the new policy, a potential drawback was that some schools waited much longer than others to start rolling out the senior defense. This meant that not all schools were at the same stage of implementation during the first year of the new graduation requirement.

Importantly, Pasadena Unified’s approach of implementing the new graduation requirement over a 4-year period of time enabled district staff to begin developing student and educator supports for the senior defense in advance of the requirement. This included offering “mock defenses” for students and a calibration exercise for educators, as described earlier in this report. As the implementation plan evolved, it also grew to include the development of supports for English learners and students with disabilities (including those with IEPs) in addition to driving greater curricular alignment.

A clearly defined site coordinator role supported implementation at each school

Leading up to the implementation of the senior defense, district leaders in Pasadena Unified recognized the need for clearly defined roles. As one district staff member said, “People need to understand all throughout the [district] how they fit into us realizing the mission and vision of our school system.” While the graduate profile articulated the vision for what all students should achieve in the district, district staff recognized that teachers and students needed to be supported through the senior defense process and understand the purpose of the new requirements. To do this, Pasadena Unified created the role of site coordinator, who would lead implementation at each school and deliver clear messages to all staff about the purpose and requirements of the senior defense.

The creation of the site coordinator position was identified by many as a key condition that enabled each school to reach the district’s goal of all graduating students in the Class of 2019 completing a senior defense. It was decided early in the 4-year process of implementation that site coordinators would act as on-site experts on the portfolio and defense requirements, while also providing support to school administrators, teachers, and students. The district was able to create the position by expanding the role of librarians and providing extra compensation to those librarians in recognition of the added work.

Site coordinators took on much of the responsibility for supporting students at each school. For example, leading up to the full implementation of the senior defense, site coordinators offered to meet with students individually to ensure they had what they needed to engage with the new process. Importantly, this occurred in the high schools with the largest student bodies as well as in the smaller schools. As one site coordinator described his role:

We've [site coordinator and school leader] met with basically every senior individually to go over every aspect of it.... We met with most of them in the beginning of September; a few were in the beginning of October. We got a warm fuzzy, "Hey, do you have a research paper? Do you have a piece of work that you think encompasses you and the graduate profile?" and then talked about the reflection. I've spoken to the seniors at large, in either class presentations or in their senior class meetings, three or four times, ... and whenever they've come, unless I was super busy, I've always taken that time to talk to them and work through those issues.

Site coordinators had many responsibilities, managing logistics and serving on judging panels for senior defense presentations, as well as supporting students and teachers to prepare portfolios and defenses. While teachers also supported students by answering questions and helping them prepare their portfolios and presentations, site coordinators took on the bulk of this work, due to their role as the lead at each school.

This support that site coordinators provided to students and teachers was in addition to their regular job responsibilities, though they did receive a stipend from the district in recognition of the additional work. According to one school leader, the stipend "is really helpful to have, because it is such a great amount of work and workload."

Further emphasizing the importance of site coordinators, one district leader summed up how necessary they were to the process of implementing the senior defense:

I don't know that it [implementing a senior defense] can be done without a designated person [at each] site that kind of takes that role. All of our librarians who are the site coordinators, they've done a phenomenal job putting all this together—everything from identifying students [to] meeting with students. If we don't have a site coordinator, I don't know that this could be done.

Over time, the site coordinator's role expanded to include assisting the district in communicating clear messages about the purpose of, and requirements for, the senior defense. Pasadena Unified initially communicated to students through district materials and presentations in classrooms and used planning meetings and professional learning sessions to deliver messages about the purpose and requirement of the senior defense to school leaders and teachers. This district approach alone, however, did not always result in the clear and consistent messaging district leaders had intended. For example, district staff interviewed for this study described explaining that the purpose of the senior defense was for students to develop the skills outlined in the graduate profile while reflecting on and "celebrating their learning," but some teachers and students we interviewed reported that they did not understand the purpose, at least initially.

While those students and staff did describe having a clearer understanding of the purpose after completing their own defense or witnessing a student defense, respectively, this initial misunderstanding resulted in some teachers and school leaders being apathetic toward the

requirement leading up to, and during, its first year, giving students mixed messages about its value. Site coordinators, however, played a key role in managing the information students received, even intervening to ensure students saw the value of the requirement. One site coordinator, for example, shared the messaging she used with students. She said:

I try to communicate with [students] that [the senior defense is] about their individual growth, and also understanding what they can do now that they weren't able to do before. And that is really, really hard for kids. They say, "I do research." It's like, well, what does that mean? So we break it down.

While this site coordinator shared how she broke down the purpose of the senior defense, another site coordinator said that when he realized students at his school were not responding well to the term "senior defense," he took it upon himself to change the narrative, calling it instead a "senior reflection." The more positive connotation associated with reflection reportedly helped students have a better attitude about the process.

Importantly, site coordinators helped shift the mindset about the senior defense for teachers and school leaders as well. For example, one school leader described how the site coordinator at his school came up with the idea to have a few students, who completed their senior defenses early, come to a staff meeting and do their presentations. He explained how this changed his thinking about the senior defense as a whole, saying:

My mindset [was], "OK, if it's a mandate, we're going to do it, and we have to do it. I'm not going to put my kids at a disadvantage." ... [Students presented] at the staff meeting, and that was very eye-opening for me, but also for the whole staff, like the amount of work, and what was to be done, and how it was going to work out.... So I kind of started to change my mind about it then.

As he described, this staff meeting was an important factor in shifting his mindset about the value of the new graduation requirement, and the site coordinator was responsible for making that happen.

Overall, because of the site coordinators' lead role in the senior defense and their work on the ground to understand student and staff needs, they were able to intervene with clearer messaging about the purpose of the new requirement and make decisions that supported the implementation of the senior defense, such as changing its name. This helped to make implementation of the senior defense a reality by the 2018–19 school year. As described in the next section, schools were given latitude to determine when in the 4-year window was the right time to implement the defense, and site coordinators led that decision-making process in collaboration with school administrators.

A flexible implementation timeline gave schools an opportunity to prepare

Though it would become a districtwide requirement for all schools to fully implement the senior defense by the 2018–19 school year, individual schools within Pasadena Unified were allowed to roll out the senior defense in the preceding years. In some instances, this led schools to start the process early and slowly roll out the senior defense starting with only a few students, to learn alongside these students and revise the approach as necessary.

This rollout approach was particularly useful to one school within Pasadena Unified, whose principal described how it contributed to curricular and vertical alignment:

As [students] were doing [their senior defense], that helped the teachers, and they were able to align it to our professional development. [They started considering,] “Are we building in a little bit of research? Are kids doing oral presentations? Are we using common rubrics? These are the types of skills that the kids need to be doing.” So we backward-mapped it ... all the way through to our middle school.

The benefits of implementing the senior defense and starting with students before their senior year were felt by other staff as well. For example, one staff member at the same school explained that she felt it would have been challenging to have the entire senior class and the school go through the process together for the first time, noting that the one site coordinator would need to deliver information to over 200 students without having a classroom to do so. This dilemma led staff at that site to develop a peer mentorship process for students, something they found hugely helpful as more students started engaging with the senior defense process. The same staff member explained:

Having those kids help each other has been the only way to survive with a large student body like that.... I would say if there’s one thing that we did here that I would keep for next year ... [it] is having those kids who’ve already been through the process, who can teach their sisters and brothers, and all that. And that really helps, because for one person to [support every student] on a campus, it’s a lot.

By starting with a subset of students, this school was able to better prepare for the needs of the entire student body that would be completing the senior defense the following year. As the staff member explained, this resulted in a mutually beneficial circumstance in which those students who completed their senior defense early could gain mentorship experience to put on their college applications, while the site coordinator had a group of students who could provide peer supports as the senior defense was rolled out, taking some of that responsibility off that site coordinator’s shoulders. This approach was also recognized by a district administrator as a key approach for scaling up the senior defense. She said:

At [one school], we took that small group of students that first year, which was 10th-graders ... and they presented. We just wanted to see, how is this going to look? I know you’re not a senior, but can you do this? And then, those students, we called on them over and over. The librarian there is pretty fantastic. She pulled those students together, and she said, “Now you’re going to be the mentors for the students in the grades below you to help them do their projects.” So those students were like little worker bees, helping the class beneath them. And then they became juniors, and then they became seniors. And now, they have, I think, 25 juniors now that have presented, and they will be there to mentor the juniors for next year. So, building that community within the senior defense has also been really nice to see.

While some schools saw the flexible implementation timeline as an opportunity to better prepare for full implementation, not every school approached it in this way. Individuals interviewed for this study who were at schools that opted in to implementing early believed it helped with the overall implementation. However, because implementing early was optional, some school leaders chose not to do so, and their students did not begin working on their senior defenses until the beginning

of the 2018–19 school year. In some cases, that choice was made to allow schools time to better develop a schoolwide plan and help teachers prepare, but the approach also presented challenges. For example, one teacher explained that it was “very challenging to have kids write an academic research paper, an analytical research paper, without really ever practicing that.” At least one school that did not implement early reportedly saw how it benefited the school that did, and one staff member shared that the school is now starting the senior defense process with its 11th-graders, asking them to reflect or even complete the defense before their senior year.

Overall, the flexibility of the district’s approach created an opportunity for schools to decide how and when they wanted to implement the senior defense before it became a requirement. This allowed some to implement on a small scale to test it out with a handful of students and learn more about the kind of supports that would be needed. Those that took advantage of this opportunity found it beneficial to their implementation process. Though the exact approach taken at each school differed, the flexibility to introduce the requirement early and the leadership of site coordinators were identified as key aspects of the district’s phase-in plan for implementation. Now that the senior defense has been completed by the first class of 12th-grade students in the district, Pasadena Unified recognizes that there is more to be done to fully meet its vision for a senior defense requirement. As one Pasadena Unified district leader described it, the 2018–19 school year was still very much a “learning year,” and the district would plan to keep iterating on the processes and structures it created to better support teachers and students (see Appendix G for an update on the 2019–20 school year).

Meaningful Learning for Students and Teachers

There is ample research highlighting the potential impacts of performance assessments on student and teacher outcomes. The focus of this study builds on this research, which suggests that the successful implementation of performance assessments depends on teachers' training, support, and engagement throughout the performance assessment process and on support structures for students.⁵⁵

Based on interviews and focus groups with 12th-grade students, educators participating in the work of the senior defense, and school administrators, we learned how the senior defense influenced students' learning experiences and outcomes, as well as the teaching experience, in Pasadena Unified.

Broadening Student Outcomes

Students and educators in Pasadena Unified shared the ways they believe the senior defense impacts student learning outcomes and can have a further impact on these outcomes in the future. In particular, they indicated that the senior defense provides students with opportunities to reflect on their learning and to develop their presentation skills, as well as to prepare for their future college and career trajectories.

The senior defense provided an opportunity to reflect on learning

Both students and educators in Pasadena Unified described how the senior defense process of curating a portfolio and developing a presentation enabled students to reflect on past assignments by pushing them to think about the value of those assignments, the skills they developed through those assignments, and how they could have improved their work. The senior defense process provides students with multiple opportunities to reflect on their learning. First, in selecting artifacts for their portfolio, students are tasked with reflecting on their high school journeys to identify their

By connecting these reflections on their learning to their personal stories—their extracurricular interests, their personal journeys, and their future goals—students are able to connect the dots between their learning and the real world.

highest-quality work. Then, in presenting their senior defense, students are asked to reflect on why they chose each artifact, how the artifact demonstrates their growth and acquisition of key district graduate outcomes, and what room they might still have to grow. By connecting these reflections on their learning to their personal stories—their extracurricular interests, their personal journeys, and their future goals—students are able to connect the dots between their learning and the real world. In the words of one student, “The senior defense makes you find a connection to everything. Now when I think of something, ... I’m thinking about how this relates to what’s going on around me.”

Students also shared that they appreciated the opportunity to demonstrate their growth in a new way. About their engagement with the senior defense, one student shared, “It was one of the only times I could remember that I got to show a way that I grew that wasn’t our usual A through G [course requirements for admission to the University of California or California State University systems].”

District leaders also described these opportunities similarly. For example, one district leader explained that the senior defense empowers students to share their “learning journey.” A teacher described the power of providing students with the space to connect the dots between their learning and their personal experiences, saying that it gives the classroom more “purpose”:

I think [the senior defense is] exciting, because it allows you to take something you already love to do and go further and go deeper and make the connections between what you’re learning in a classroom to the things you’re passionate about. And I think that’s super important because it gives the classroom purpose. Being able to see, being able to use your English skills to write about it, or being able to ... cross over between school and life—to me, that’s what tells me you’re ready, because you can see that connection, because you use that connection.

From the perspective of students, this focus on reflection has also helped break through the pattern of simply learning new material and moving on. Instead, it has provided them the space to pause and take stock of what they have learned. According to one student,

I personally like the aspect of the whole reflection thing, where you’re trying to look at your old work and how you improved over the years, because for most of our grades, we do it, just get it done, and say, “That’s it. I don’t have to look at it ever again.” And I think the whole process of looking at it again and saying, “Oh this is what I did for this, this is the process of it” was kind of a different experience than what we usually do.

This student reflection also highlights the possibilities of leveraging the senior defense as an opportunity to positively shift teaching and learning.

The senior defense provided an opportunity to develop presentation skills

Students and educators also said that practicing oral presentations in class, and ultimately presenting in front of a judging panel, offered meaningful opportunities for students to hone their presentation skills. Several students shared that the senior defense was the first opportunity they had to present in such a way. They appreciated that the senior defense presentations differed from other presentations they had done in their classes in terms of format (i.e., they presented to a judging panel, instead of reading off of a slideshow to their classmates) and content (i.e., they presented about themselves and their learning rather than solely on a topic they researched).

One teacher noted that students take the oral presentation element of the senior defense seriously, and the senior defense has inspired more teachers to incorporate opportunities for oral presentations in their classes, saying, “There’s a lot of student ownership ... and just the development of oral communication skills. That’s increased drastically. You’ll have one person teaching here or there, but with this project it’s like they’re constantly presenting in classes.”

Students reflected that the senior defense has helped them develop their public speaking skills and their confidence presenting. One commented that she is “not afraid to speak in front of people.” An educator noted that this opportunity to present is particularly significant for students who are traditionally “really quiet and shy in class.” An English learner instructional coach in the

district also shared that the senior defense can be particularly powerful for bolstering the public speaking skills and confidence of English learners, who may otherwise have limited opportunities to present:

I think it also helps [students] with regard to their public speaking, especially our English learners. [They] realize, “Wow, this is part of what lies ahead in my future, and I need to have these skills,” which is part of the speaking, listening, and reading portion of [the senior defense]. More and more, we have classrooms where they’re speaking less, reading more—which is great—but developing those speaking [skills] and realizing that they’re going to be expected to stand up and deliver a presentation of this scale ... I think that really sets the tone for, “OK, I’m going into the big world now, and I’m going to need to be prepared and be able to prepare to present.”

As this educator explained, the senior defense created opportunities for students to practice and develop presentation skills they will likely need after graduating.

The senior defense encouraged college and career preparation

Students and educators in Pasadena Unified both felt that the senior defense was a powerful tool for fostering students’ college and career readiness. Across the three sites we observed, students were instructed to begin their senior defense presentations by introducing themselves and their academic and extracurricular interests. They then shared their postsecondary plans and reflected on the academic and personal path that led them to these plans. Beyond providing the students with an opportunity to reflect on their postsecondary plans, the senior defense also supports students’ acquisition of skills that are critical to their college and career readiness. For example, educators shared that the senior defense has supported their schools in ensuring that *all* students are equipped with key academic skills—such as research—necessary in college. In the words of one site coordinator:

I think [the students are] more ready for college, especially the ones who might not have been getting the essay, the research paper [taught in their traditional classes]. So [the defense] really pushed research, and a more focused teaching of research, across the board, for both the AP [Advanced Placement]/honors kids and the kids in special [education].

Students also shared that they see the nature of oral presentation required for the senior defense as aligned with the types of assignments they will be expected to complete in college. Educators agreed that the senior defense helps students to develop public speaking and presentations skills that are key to students’ college and career readiness. Additionally, students said that the senior defense allowed them to develop skills that are directly applicable to their intended college major. For example, one student explained that she felt the senior defense was preparing her for the type of work she would do in college as a marketing major.

Supporting Instructional Practice and Improvement

Through interviews and focus groups, educators who were involved with implementing or supporting the senior defense also reflected on how this experience has influenced their teaching practice. Educators described how the senior defense supported them in continuously improving their instructional practice, in implementing curricular and instructional practices aligned with performance assessments for all students, and in supporting deeper teacher–student relationships.

The senior defense encouraged continuous improvement

Educators across grade levels and subject areas shared that engaging with the senior defense—including preparing students and observing their senior defense presentations—helped them better diagnose potential areas for instructional and curricular improvement. Similar to the ways in which the senior defense facilitated additional opportunities for students to reflect on their learning, engaging with the senior defense allowed educators to see their own assignments on display and reflect on the effectiveness of their teaching practice. One teacher explained:

This [senior defense] is the project that pushed me creatively the most.... For a teacher, that's so valuable. You get to see what sticks. That's what all the teachers are going for, is to create a lesson that kids remember 2 years from now after they do it.... That's gold. And so, [teachers] got to see: What's the goal that's happening? And what are the qualities of those projects that the kids are learning from and remembering? ... It helps [teachers] with lesson planning and everything.

In this way, the senior defense can offer useful formative feedback to teachers and can provide them tangible data to inform their future work. Educators also said that the senior defense provided a unique opportunity to assess which assignments students are connecting with and which assignments are helping students develop the skills they need. As these educators explained, this allows them to adjust student assignments more intentionally, creating a positive feedback loop for continuous improvement. One teacher described how this process has helped her reflect on her teaching practice in key competency areas the senior defense focuses on, such as critical thinking and presentation skills:

[The senior portfolio and defense] just makes you reflect as a teacher: Am I covering this in class? Am I asking them to think critically? Am I asking them to present [in class] and in a manner that they could present to an audience?

By putting students' artifacts "on display" to the wider school community, this process also allows educators who may not be formally tied to any one classroom to contribute more effectively to schoolwide instructional improvement and to reflect deeply on instructional practices. One English learner instructional coach framed it as such:

I don't have a classroom, but because I get to see [students' senior defense] artifacts they're using, ... it helps me coach new teachers and explain to them the sorts of things

The senior defense can offer useful formative feedback to teachers and can provide them tangible data to inform their future work.

or the artifacts the students choose, and it also helps me to reflect on a lot of things as far as the school and what our schools offer, and I've been very vocal about it.

One school administrator also reflected on how the senior defense has encouraged collaborative continuous improvement across his school:

One of the things [that makes defenses effective] is reexamining those Common Core standards around literacy, especially with writing and research in the content areas, so that it's not just the responsibility of the English teachers. That's something that has surfaced, so we're seeing a lot more discussion—dialogue where we didn't have that before. I think this is, in a positive way, having an impact—that positive pressure of really looking and making sure that what we're doing in class is aligning with what our goals are for the end of [our students'] 4 years here.

In this way, educators and school administrators have the “positive pressure”—and the formative data—to consider the extent to which their curriculum and instruction are aligned with standards, and what room they may still have to grow.

The senior defense encouraged the alignment of curricular and instructional practices across subjects and grades

As a result of these continuous improvement efforts, school-level educators described seeing improvements in their own practice, and district leaders described seeing improvements in instructional practices employed across schools. They observed that school sites are now building more opportunities for students to engage in oral presentations, research projects, creative activities, and reflections about their learning. Educators also described how the senior defense requirement has helped ensure that these curricular and instructional practices reach *all* students, especially students with disabilities, English learners, and students who are not in College and Career Academies in Pasadena Unified.

One school administrator explained the ways in which the senior defense has helped his school better align its instructional practices with its goals:

We have a research writing piece in our defense, and that's one thing which worked for us.... We had been wanting to improve the amount of research writing for all students on campus, and it was difficult to get everyone on board. But then this gave a, “Look, everyone has to present about a research paper they did. If we're not doing it, we're setting the kids up for failure.” So it helped align to our goals, that we wanted to increase the amount of research that we were doing on campus. And so to make it better for our kids, then we could add more research. So that has helped increase the amount of research work that we're doing here on our own campus.

In addition to helping educators recognize the need for more research opportunities across classrooms, the senior defense has supported educators in identifying their school's need for effective integration of reflection opportunities and has already led schools in the district to take tangible steps toward greater vertical alignment (the process of ensuring the curriculum in one grade or subject prepares students for learning in the next grade or subject). One school

administrator described in detail how the senior defense has shaped continuous improvement in his school through a process of backward mapping (a practice that educators use to plan the timeline and benchmarks necessary to achieve a larger end goal):

We did a vertical articulation plan.... We took the requirements of the senior defense, the oral and the writing particularly, and we backward-mapped it. If they have to have an 8-page paper written, they can't do it their senior year; they have to have it written by their junior year. So then if every junior is writing an 8-page research paper and doing a 10-minute presentation, let's say by their junior year, then what's the expectation in all classes for presentations and paper writing? ... So what do they need in their sophomore year? Their freshman year? We mapped it all the way back to 6th grade, so that way we see more oral presentation skills.

As educators continued aligning curricular and instructional practices, students noticed how some of these shifts support their engagement with the senior defense. In the words of one student:

Our Spanish teacher gave us a creative piece so that we could have the opportunity to use that in senior defense in case we hadn't taken some kind of visual arts class. I think [it] was really helpful to have the teachers be involved in it to an extent, and it gave students the opportunity to use their specific assignments ... with the knowledge that it will be for senior defense.

The senior defense facilitated positive teacher relationships with students

Educators shared that the process of implementing the senior defense provided them with an avenue to get to know their students more deeply. Especially for larger school campuses, finding and building spaces for students and teachers to build positive relationships can be a challenge. By providing students with a way to share their personal stories and extracurricular and academic interests, through their portfolio work and presentation, the senior defense has allowed educators to better understand their students' lives and experiences within and beyond the classroom.

Across the three school sites we observed, students frequently began their senior defense presentations on a very personal note—sharing their families' immigration stories, personal challenges they have encountered in their educational journeys, and key teachers who have served as mentors through these challenges. The senior defense has the potential to build deeper relationships between students and school staff by providing a formal space for students to share their stories. In addition to creating this space for storytelling, the senior defense provided a space for students to share their interests and reflect on how they have grown as learners. As one student reflected,

[The senior defense] gave us an opportunity to [present on] something we felt we valued a lot, some work that we've put a lot of work into, and it gave us the opportunity later to expand on that.... Some of the stuff that I presented is something that I still do in my life, so some of the artifacts affected my life.... I think that was something good, that our teachers and other people know that we've actually grown from that.

In the words of one school administrator, the senior defense is students' "moment to shine." After observing a student's senior defense, another school administrator recalled reflecting, "Wow, I didn't realize that they did these extra things outside of school, or [that] this is what they felt." Teachers agreed that getting to know their students in such a way is key to building empathy with them and recognizing the fuller picture of who their students are. The senior defense can therefore be a powerful tool in creating spaces for teachers and students to build relationships with each other. In the words of one school administrator, "This gives us a chance to really get to know our kids." Such relationships matter because research shows that cultivating strong relationships in schools is foundational to students' healthy development and learning.⁵⁴

Lessons Learned

This case study of Pasadena Unified found that several key conditions supported the implementation of a districtwide senior defense requirement: a supportive policy and practice environment, a strong vision supported by district-led policy, access to resources and technical assistance, multiple and varied opportunities to see performance assessments in action, and the development of a plan for implementation. Evidence from the case study also indicated that the implementation of the senior defense is associated with positive outcomes from the perspectives of both students and teachers. In particular, the senior portfolio and defense thus far has broadened the ways in which student outcomes are measured and has supported instructional practice and improvement.

Through our research, we identified additional lessons that can be learned from Pasadena Unified's experience implementing its senior defense requirement. Following are five lessons for district leaders and local policymakers who are interested in adopting performance assessments through a collaborative, district-led approach to consider:

- 1. Starting with a clear vision for students' college and career preparation can be a powerful driving force for implementing performance assessments.** By defining a set of skills and competencies for students to develop by the time they graduate, schools and districts can think critically about the instructional practices that enable students to achieve this goal and the best methods to assess student learning in these areas. The Pasadena Unified story shows how the process of developing a graduate profile can lead to an effort to establish districtwide performance assessments as part of a balanced system of assessment.
- 2. Having opportunities to observe performance assessments—in addition to receiving clear and consistent messaging about the purpose and components of such assessments—can help staff, students, parents, and community members see the value in this work.** Pasadena Unified stakeholders described the importance of seeing students engage in defenses of their work. This reportedly helped increase understanding of what performance assessments are and why they are important. After witnessing even a single instance of students defending and reflecting on their learning, such as the Pasadena Unified districtwide professional learning day, stakeholders may better understand the purpose and value of this assessment practice. Messaging about both the purpose and the components of a performance assessment initiative, such as the Pasadena Unified senior defense, can also help stakeholders see the value in the assessment practices and ensure that both students and teachers understand the purpose and requirements. In Pasadena Unified, some students and staff suggested that if they received more clear and consistent messaging from the start, it could have helped ease the transition to the new performance assessment initiative.
- 3. Implementation of a districtwide performance-based graduation requirement can be supported by ensuring that educators have sufficient time and resources.** Developing a phase-in plan and dedicating time to relevant professional learning opportunities can help support the implementation of a districtwide performance-based graduation requirement like the Pasadena Unified senior defense. Having dedicated district- and school-level staff take on certain responsibilities, including offering professional

development for teachers, coaching students, and scheduling student defenses, can also help ensure a smooth transition to a new performance-based graduation requirement at individual school sites.

4. **Strong supports can help teachers and students succeed, especially in the early years of implementing a new performance assessment policy.** In Pasadena Unified these supports included a site coordinator, guidance for teachers and students, and professional learning around the use of rubrics and calibration of scoring. In particular, Pasadena Unified educators viewed consistent guidance and support for students as an essential component of ensuring students were able to meet the new senior defense graduation requirement with a high level of rigor. This support could include a site coordinator to guide students through the new process, as well as peer supports (i.e., formal or informal opportunities for students to talk with their peers who have already completed the process). Similarly, consistent guidance and support for teachers can help build their capacity to implement curricular and instructional practices aligned to a new performance assessment requirement, such as the senior defense. Professional learning opportunities that focus on the implementation of performance assessments, including how to use rubrics and calibrate scoring practices, may be especially valuable. It is also important to provide support on an ongoing basis to both new and veteran teachers, especially as new teachers and staff are hired.
5. **Engaging in performance assessments can positively influence educators' instructional practices, even as the work is just starting out.** Because of the feedback loop performance assessments can create, participation in a performance assessment process can help educators diagnose areas in need of instructional and curricular improvement and adjust their practice to better support student learning. For example, after participating on a judging panel for student defenses, teachers may better understand the need for vertical alignment of instructional practices and the importance of providing students with opportunities to reflect on their learning.

Conclusion

Pasadena Unified developed a districtwide senior defense graduation requirement as a means to ensure that all graduates develop skills that will prepare them for college and the career(s) of their choice. After collaboratively developing a graduate profile that specified the skills and abilities all Pasadena Unified students should be able to demonstrate, the school board passed the senior defense as a graduation requirement meant to measure those skills. When the senior defense became district policy in 2014, Pasadena Unified began a 4-year planning and implementation period aimed at developing the capacity of educators and making curricular changes. The 2018–19 school year was the first year in which the senior defense was a requirement, and all graduating seniors in the district successfully completed their portfolios and passed their defenses by May 2019.

This study found that a supportive policy and practice environment at the district and state levels was the first key condition that enabled the implementation of a districtwide performance assessment initiative in Pasadena Unified. In particular, having a strong, collaboratively developed vision for student outcomes helped enable the development of the senior defense, and having that vision codified through district policy was a key factor in it reaching every student.

This study also found that utilizing resources from performance assessment experts and having access to technical assistance supported the district through the development of its vision and as it sought to build the capacity of educators through professional development. Many educators and district leaders who participated in this study also referred to the multiple, varied opportunities to observe systems and structures surrounding performance assessments, both within and outside of Pasadena Unified, as a condition that supported implementation. Lastly, this study found that developing an implementation plan created opportunities for some schools to build their capacity early and designate a coordinator to oversee the process at each site.

Though the district was in its first full year of implementing the senior defense districtwide during this study, participants identified a number of positive outcomes already emerging from its implementation. These outcomes included the creation of opportunities for students to reflect on their learning, develop skills for college and career, and hone their presentation skills. Teachers also felt that the senior defense process supported their instructional practice and created opportunities for continuous improvement, as well as opportunities for educators to develop closer relationships with students.

Based on these outcomes, this study identified several lessons that other districts can learn from Pasadena Unified's approach to implementing districtwide performance assessments. First, a clear vision for students' college and career preparation can be a powerful driving force for implementing performance assessments. Having opportunities to observe performance assessments, in addition to receiving clear and consistent messaging about the purpose and components of such assessments, can also help staff, students, parents, and community members see the value in this type of initiative. Other districts can also look to the Pasadena Unified case to see that providing access to sufficient time and resources is helpful, as it can be challenging to implement a districtwide performance-based graduation requirement. During implementation, and especially in the first year, strong supports, including a senior defense coordinator at each school, guidance for teachers and students, and professional learning around the use of rubrics and calibration of scoring,

were necessary in Pasadena Unified. Lastly, we learned from Pasadena Unified that engaging in performance assessments can positively influence educators' instructional practices, even as the work is just starting out.

By taking a collaborative, district-led approach, Pasadena Unified was able to create a performance assessment initiative that encourages rigorous instructional environments for all students. In the years to come, Pasadena Unified aims to continuously improve its processes and instructional practices to ensure that the senior defense is helping all students to develop the skills and abilities they will need for their lives after graduation.

Appendix A: Methodology

The goal of this study was to document Pasadena Unified’s implementation of a districtwide senior defense graduation requirement. This individual case study is part of a larger multiple case study of the implementation of performance assessments in a total of three districts in California: Los Angeles Unified School District, Oakland Unified School District, and Pasadena Unified School District.⁵⁵ This case study is accompanied by a cross-case report.⁵⁶

Site Selection

The Learning Policy Institute (LPI) chose Pasadena Unified because this district represented an approach that was grounded in a decade of previous work on authentic student assessments. Pasadena Unified was also actively engaged with the California Performance Assessment Collaborative (CPAC) and, therefore, had support of this community of practice to reflect on its implementation and use the case study for continuous improvement.

To inform this case, we also selected three Pasadena Unified high schools (School X, School Y, and School Z). The schools are not named in this study in order to protect the anonymity of the educators and students we interviewed. These school sites were selected in consultation with the district administrators most familiar with each school’s work around performance assessments. The researchers and these administrators chose school sites that represented the range of performance assessment work being carried out by schools in the district. In defining the range, the research team considered factors such as the amount of time a school site had been implementing performance assessments, as well as existing schoolwide structures (such as College and Career Academies). In selecting the sample, the research team also selected a range of school sizes and selected schools whose student demographics did not significantly vary from those of the district at large.

School X is a combined middle and high school serving approximately 1,000 students in 6th through 12th grade. School Y is also a combined middle and high school, and it serves approximately 2,000 students in 6th through 12th grade. School Z is a comprehensive high school serving approximately 1,500 students in 9th through 12th grade. All three schools in this study had at least one College and Career Academy. At the time of data collection, all three schools were in the first year of fully implementing the senior defense graduation requirement.

Research Questions

LPI collected data to address the following research questions:

- What are some of the external factors that influence these three districts’ ability to develop and scale high-quality performance assessments?
- How do these districts build the infrastructure for developing, implementing, and scaling high-quality performance assessments?
- How are participating schools building the systems and structures for developing, implementing, and scaling high-quality performance assessments?

- How are participating teachers using high-quality performance assessments to support student learning through their curriculum and classroom practices?
- What are the perceived outcomes for teachers of participating in high-quality performance assessments?
- What are the perceived outcomes for students of participating in high-quality performance assessments?

Data Collection

We used a case study approach to address these research questions. Case studies allow researchers to investigate real-life phenomena in context, generating understandings of a phenomenon and its interplay with its environment.⁵⁷ The majority of the data were collected from October 2018 to June 2019 by a three-person research team. In addition, the research team conducted interviews with educators in April 2020 to understand how schools in the district responded to the COVID-19 pandemic (Appendix G). We used data from a range of sources, including documents, district administrative data, interviews with a range of personnel at the district and school levels, focus groups with teachers and students, observations of student performance assessments, and observations of professional learning opportunities for teachers (Table A1).

Table A1
Study Interviewees, Focus Groups, and Observations

Interviewee Roles	Total Participants
District Administrator and Staff Interviews	7
Principal and Assistant Principal Interviews	3
Teacher Leader and Site Coordinator Interviews	3
Teacher Focus Groups	3
Student Focus Groups	3
Observations of Students' Senior Defenses	49
Observations of Teacher Professional Learning Sessions ^a	1

^a This learning session was the primary districtwide, full-day professional development session offered in the 2018–19 school year.

To develop protocols for data collection, we conducted a review of the literature. We also drew on the researchers' experiences in supporting the districts through the California Performance Assessment Collaborative (CPAC) network. With this work as a base, we identified factors we wanted to inquire about during data collection (e.g., professional learning opportunities available to teachers). We then constructed semi-structured interview, focus group, and observation protocols to help us better understand the previously identified factors and to surface any other conditions that might emerge as necessary to support implementation of district performance assessment initiatives at the district, school, and classroom levels.

To analyze the data, the researchers engaged in a multistep process. First, we drafted a preliminary code list based upon the key conditions identified in the literature review. Next, we transcribed all interview, focus group, and observation data. One researcher then coded the data independently in Dedoose, a web-based application for qualitative analysis. This coding included deductive codes based on the literature, as well as inductive codes that emerged during the coding process.

The research team then refined the codes based on the themes present in the data. Once the codes were refined, all research team members engaged in a series of calibration exercises to ensure that we held a shared understanding of each of the codes. After these calibration exercises, researchers applied the codes in Dedoose to interview and focus group transcripts and field notes about observations. To increase inter-rater reliability, researchers met weekly or biweekly to discuss and compare decisions about the coding process. Document review supplemented the analysis of interviews, focus groups, and observations, serving to describe the district processes.

Ultimately, the research teams triangulated findings across multiple data sources and sought both confirmatory and disconfirmatory evidence to develop illustrations of the key conditions and findings that emerged as well-grounded from the evidence. Each case study draft was reviewed internally by two or three members of the research team, checked by a district leader for accuracy, and revised based on expert peer review.

Appendix B: Graduate Profile Quality Criteria Check



Graduate Profile Quality Criteria Check

Form		Yes	Content		Yes
	Is your grad profile comprised of 7 or fewer big categories?			Is the grad profile made up of complex cognitive skills, not values?	
	Does your grad profile fit on one page?			Is it possible to describe what proficiency looks like for each skill listed in the grad profile? Is that description of proficiency measuring the work, and not the person?	
	Is your grad profile displayed graphically or visually?			Are the skills of the grad profile cross-disciplinary?	
	Is your grad profile organized into an easy to memorize framework?			Are the skills of the grad profile applicable beyond school, do they extend to college or career? • Would you see these skills in a job description? • Are they necessary in the adult world?	
	Does your grad profile use inclusive language, especially for students?			Does your grad profile synthesize all of the outcomes for which the school is responsible (Common Core, district, school, pathway, etc.)?	
	Is the student the subject of the sentences in your grad profile?			Are the big categories of your grad profile distinct enough that a student can be good in one and struggling in another?	
	Do you provide succinct definitions for each of the big categories of the grad profile?			Does your grad profile challenge the current default setting of education in your context? Is it pushing against “business as usual” in some way?	
Notes:			Notes:		

Source: Envision Learning Partners. (n.d.). Graduate profile quality criteria check. http://teacher.justinwells.net/Downloads/GraduateProfile_QualityCriteria.pdf (accessed 01/29/20).

Appendix C: Research Rubric

Pass

Resubmit

Pass with Distinction

Student's Name: _____ Student ID #: _____ Date: _____

Panelist Name: _____ School: _____

RESEARCH NOTE TAKING RUBRIC

Scoring Domain	Indicator	Evidence <i>must have evidence here to check box to the left</i>
Argument	<ul style="list-style-type: none"> <input type="checkbox"/> Makes a clear, well developed, and convincing argument that demonstrates original critical thinking <input type="checkbox"/> Makes relevant and significant claims that support the argument <input type="checkbox"/> Acknowledges and response counter-claims <input type="checkbox"/> Thoroughly explains background and context of topic/issue <input type="checkbox"/> Makes insightful connections, draws meaningful conclusions 	
Cite Sources	<ul style="list-style-type: none"> <input type="checkbox"/> Refers to extensive and comprehensive evidence (print/digital) relevant to argument <input type="checkbox"/> Weighs and evaluates inconsistent information and differences among authors on the same topic (when appropriate) 	
Evidence	<ul style="list-style-type: none"> <input type="checkbox"/> Synthesizes and critiques evidence from multiple sources related to the argument <input type="checkbox"/> Assesses the strengths and limitations of most important sources to support or refute the argument or claims (when appropriate) 	
Organization	<ul style="list-style-type: none"> <input type="checkbox"/> Argument is presented clearly and consistently <input type="checkbox"/> Ideas are fully developed and logically sequenced to present a coherent whole <input type="checkbox"/> Transitions guide the reader through the development and reasoning of the claim 	
Language	<ul style="list-style-type: none"> <input type="checkbox"/> Has an effective fluent style with variety in syntax, precise word choice <input type="checkbox"/> Is free from errors in grammar, usage, and mechanics 	

Appendix D: Creativity/Innovation Rubric

Pass

Resubmit

Pass with Distinction

Student's Name: _____ Student ID #: _____ Date: _____

Panelist Name: _____ School: _____

CREATIVITY AND INNOVATION NOTE TAKING RUBRIC

Scoring Domain	Indicator	Notes
Point of View	<ul style="list-style-type: none"> <input type="checkbox"/> The product presents a specific point of view <input type="checkbox"/> The student can clearly articulate the intent of the work orally or in written form 	
Originality	<ul style="list-style-type: none"> <input type="checkbox"/> The product is new, unique, surprising; shows a personal touch <input type="checkbox"/> The product may successfully break rules and conventions, or use common materials or ideas in new, clever and surprising ways 	
Value	<ul style="list-style-type: none"> <input type="checkbox"/> The product is seen as useful and valuable; it solves the defined problem or meets the identified need <input type="checkbox"/> The product is practical and feasible 	
Style	<ul style="list-style-type: none"> <input type="checkbox"/> The product is well-crafted, striking, designed with a distinct style but still appropriate for the purpose <input type="checkbox"/> The product combines different elements into a coherent whole 	
Reflection	<ul style="list-style-type: none"> <input type="checkbox"/> The student uses appropriate vocabulary and principles to describe the work and the process of developing and creating the work or product <input type="checkbox"/> The student evaluates the work using emotional response as well as cultural information and art practice conventions 	

Appendix E: Written Communication/Reflection Rubric

Pass

Resubmit

Pass with Distinction

Student's Name: _____ Student ID #: _____ Date: _____

REFLECTION NOTE TAKING RUBRIC

Scoring Domain	Indicator	Notes
Metacognition /Growth	<ul style="list-style-type: none"> <input type="checkbox"/> Explains the learning processes and degree of effectiveness that he/she utilized <input type="checkbox"/> Recognizes and discusses his/her growth, accomplishments, and successes <input type="checkbox"/> Honestly acknowledges areas where future growth and/or cognitive growth and development are needed and discusses a concrete plan/strategy to manage their needs 	
Connections	<ul style="list-style-type: none"> <input type="checkbox"/> Clearly connects and applies learning from one area of study or point of view to another <input type="checkbox"/> Thoroughly demonstrates evidence of the use and application of at least one of the Graduate Profile skills <input type="checkbox"/> Explains how learning from this project/assignment/artifact helps him/her to understand the world in a new way 	
Analysis	<ul style="list-style-type: none"> <input type="checkbox"/> Explains how the learning experience has developed that ability for him/her to think like an expert in specific discipline (like a scientist, a researcher, an artist, etc..) <input type="checkbox"/> Provides appropriate and consistent evidence to support an argument/thesis about him/herself as a learner 	
Organization	<ul style="list-style-type: none"> <input type="checkbox"/> Ideas are developed and logically sequenced so that the audience can follow the thread throughout the entire defense <input type="checkbox"/> Transitions connect ideas 	
Language Use	<ul style="list-style-type: none"> <input type="checkbox"/> Demonstrates varied syntax and effective word choice <input type="checkbox"/> Language and tone are appropriate to the purpose and audience <input type="checkbox"/> Is generally free of distracting errors in grammar, usage, and mechanics 	

Appendix F: Oral Communication/Presentation Rubric

Pass

Resubmit

Pass with Distinction

Student's Name: _____ Student ID #: _____ Date: _____

Panelist Name: _____ School: _____

PRESENTATION NOTE TAKING RUBRIC

Scoring Domain	Indicator	Notes
Explanation of Ideas & Information (Through a Reflective Lens)	<ul style="list-style-type: none"> <input type="checkbox"/> Presents information, findings, arguments and supporting evidence clearly, concisely, and logically; audience can follow the line of reasoning <input type="checkbox"/> Selects information, develops ideas and uses a style appropriate to the purpose, task, and audience <input type="checkbox"/> <i>Addresses alternative or opposing perspectives (IF APPLICABLE)</i> 	
Organization	<ul style="list-style-type: none"> <input type="checkbox"/> Meets all requirements** for what should be included in the presentation <ul style="list-style-type: none"> <input type="checkbox"/> Research <input type="checkbox"/> Creativity and Innovation <input type="checkbox"/> Reflection <input type="checkbox"/> Has a clear introduction and conclusion <input type="checkbox"/> Organizes time well; no part of the presentation is too short or too long 	
Eyes & Body	<ul style="list-style-type: none"> <input type="checkbox"/> Keeps eye contact with audience most of the time; only glances at notes or slides <input type="checkbox"/> Looks poised and confident <input type="checkbox"/> Wears clothing appropriate for the occasion 	
Voice	<ul style="list-style-type: none"> <input type="checkbox"/> Speaks clearly; not too quickly or slowly <input type="checkbox"/> Speaks loudly enough for everyone to hear; changes tone and pace to maintain interest <input type="checkbox"/> Rarely uses filler words ("uh, um, so, and, like, etc.") <input type="checkbox"/> Demonstrates command of formal English 	
Presentation Aids	<ul style="list-style-type: none"> <input type="checkbox"/> Uses audio/visual aids or media to enhance understanding of findings, reasoning, and evidence, and to add interest <input type="checkbox"/> Seamlessly includes audio/visual aids or media into the presentation 	
Response to Audience Questions	<ul style="list-style-type: none"> <input type="checkbox"/> Answers audience questions clearly <input type="checkbox"/> Seeks clarification, admits "I don't know" or explains how the answer might be found when unable to answer a question. 	

Pass = at least 50% of the boxes checked by the end of defense

Distinction = 100% of the boxes checked BEFORE the question and answer time

Appendix G: Districtwide Requirement With Two Options for Students During a Pandemic

In March 2020, California schools and districts moved to distance learning in response to the COVID-19 pandemic. Districts worked diligently to establish distance learning plans, and many struggled to ensure that all students had access to the internet.⁵⁸ For Pasadena Unified, this included plans for whether and how to continue with the senior defense. The state suspended required standardized testing on March 17, 2020, and optional standardized admissions tests such as the SAT and ACT were put on hold as well.⁵⁹ Our research team conducted interviews with educators in Pasadena Unified between April and June 2020 to gain an understanding of how this historic event impacted their implementation of performance assessments. Unless otherwise cited, the information below comes from those interviews.

Pasadena Unified maintained its senior defense graduation requirement throughout school closures. When the pandemic hit, 55% of seniors had already completed their senior defense.⁶⁰ District staff reportedly felt “confident the remaining students [would] also be just as successful”⁶¹ and that upholding the graduation requirement would emphasize how much they valued the senior defense.

In the days prior to the decision to move school online, district staff convened to create an approach that provided schools with options for students to complete the senior defense and avoided placing students at a disadvantage. This included two options. Students could either present their virtual defenses to a live panel or prerecord their defense presentations and share that recording with their site coordinator, who scored their presentation at a later time. Because this was the second year in which Pasadena Unified implemented its senior defense, it planned to raise the bar for students to pass, meaning students would need to meet 75% of the criteria on the rubric. Despite the interrupted school year, Pasadena Unified required students to meet 75% of the criteria on the rubric to pass, as planned. However, the district also recognized that some students could not complete their senior defense, using either option, due to exceptional circumstances. In these cases, students were not held at fault and were allowed to graduate.⁶²

Throughout the remainder of the school year, district staff held consistent check-ins with site coordinators to provide supports as needed and to maintain a sense of community. These forums provided site coordinators with the opportunity to connect and share resources that facilitated not only the senior defense, but also distance learning more generally. Shared resources included mini-lessons, online projects, and alternative assessments. Distance learning also pushed teachers’ thinking on assessment throughout the grade levels, as they grappled with the challenges of administering traditional tests online.

District staff felt that site coordinators were key to consistent implementation of virtual senior defenses, because they had been trained in educational technologies that put them in a position to support both students and teachers in the transition to virtual learning. Site coordinators found that the virtual learning format—despite its challenges—provided an opportunity for more teachers to experience the senior defense. They also found that some students who had previously been disengaged expressed enthusiasm about the virtual defense format, and some were excited to complete live, virtual presentations.

Endnotes

1. Mislevy, R. (1993). "Foundations of a New Test Theory" in Frederiksen, N., Mislevy, R., & Bejar, I. (Eds.). *Test Theory for a New Generation of Tests* (pp. 19–40). Hillsdale, NJ: Erlbaum; Darling-Hammond, L., & Rustique-Forrester, E. (2005). The consequences of student testing for teaching and teacher quality. *Yearbook of the National Society for the Study of Education*, 104(2), 289–319.
2. Guha, R., Wagner, T., Darling-Hammond, L., Taylor, T., & Curtis, D. (2018). *The promise of performance assessments: Innovations in high school learning and college admission*. Palo Alto, CA: Learning Policy Institute; Darling-Hammond, L., & Adamson, F. (Eds.). (2014). *Beyond the Bubble Test: How Performance Assessments Support 21st Century Learning*. San Francisco, CA: Jossey-Bass; Darling-Hammond, L. (2017). *Developing and measuring higher order skills: Models for state performance assessment systems*. Washington, DC: Council of Chief State School Officers.
3. Guha, R., Wagner, T., Darling-Hammond, L., Taylor, T., & Curtis, D. (2018). *The promise of performance assessments: Innovations in high school learning and college admission*. Palo Alto, CA: Learning Policy Institute; Darling-Hammond, L., & Adamson, F. (Eds.). (2014). *Beyond the Bubble Test: How Performance Assessments Support 21st Century Learning*. San Francisco, CA: Jossey-Bass; Darling-Hammond, L. (2017). *Developing and measuring higher order skills: Models for state performance assessment systems*. Washington, DC: Council of Chief State School Officers.
4. Maier, A., Adams, J., Burns, D., Kaul, M., Saunders, M., & Thompson, C. (2020). *Using performance assessments to support student learning: How district initiatives can make a difference*. Palo Alto, CA: Learning Policy Institute.
5. California Department of Education. (2019). *2018–19 enrollment by grade*. (Pasadena Unified Report 19-64881). DataQuest. <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=1964881&aggllevel=district&year=2018-19> (accessed 01/30/20).
6. Students at one of the combined middle and high schools (an alternative school) and the continuation high school were encouraged—but not required—to complete the senior defense. California Department of Education. (2019). *2018–19 enrollment by grade*. (Pasadena Unified Report 19-64881). DataQuest. <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=1964881&aggllevel=district&year=2018-19> (accessed 01/30/20).
7. California Department of Education. (2019). *2018–19 enrollment by grade*. (Pasadena Unified Report 19-64881). DataQuest. <https://dq.cde.ca.gov/dataquest/dqcensus/EnrGrdLevels.aspx?cds=1964881&aggllevel=district&year=2018-19> (accessed 01/30/20).
8. California Department of Education. (2019). *Enrollment multi-year summary by ethnicity*. (Pasadena Unified Report 19-64881). DataQuest. <https://dq.cde.ca.gov/dataquest/dqcensus/EnrEthYears.aspx?cds=1964881&aggllevel=district&year=2018-19> (accessed 01/30/20).
9. California Department of Education. (2019). *2018–19 Enrollment by English language acquisition status (ELAS) and grade*. (Pasadena Unified Report 19-64881). DataQuest. <https://dq.cde.ca.gov/dataquest/dqcensus/EnrELAS.aspx?cds=1964881&aggllevel=district&year=2018-19&ro=y&ro=y&ro=y> (accessed 08/27/20).
10. Rice, E., & Rutherford-Quach, S. (2012). *Linked Learning in Pasadena: Creating a collaborative culture for sustainable district reform*. Linked Learning Case Study Series. Stanford, CA: Stanford Center for Opportunity Policy in Education.
11. Rice, E., & Rutherford-Quach, S. (2012). *Linked Learning in Pasadena: Creating a collaborative culture for sustainable district reform*. Linked Learning Case Study Series. Stanford, CA: Stanford Center for Opportunity Policy in Education.
12. United States Census Bureau. (2017). QuickFacts: Pasadena city, California. <https://www.census.gov/quickfacts/pasadenacitycalifornia> (accessed 01/30/20).
13. Rice, E., & Rutherford-Quach, S. (2012). *Linked Learning in Pasadena: Creating a collaborative culture for sustainable district reform*. Linked Learning Case Study Series. Stanford, CA: Stanford Center for Opportunity Policy in Education.

14. Shavelson, R., Linn, R., Baker, E., Ladd, F., Darling-Hammond, L., Shepard, L., Barton, P., Haertel, E., Ravitch, D., & Rothstein, R. (2010). *Problems with the use of student test scores to evaluate teachers*. Washington, DC: Economic Policy Institute; Tienken, C., Colella, A., Angelillo, C., Fox, M., McCahill, K., & Wolfe, A. (2017). Predicting middle level state standardized test results using family and community demographic data. *Research in Middle Level Education*, 40(1), 1–13.
15. Career Academy Support Network. (2011, October). *Profile of the California Partnership Academies*. Sacramento, CA: California Department of Education. <https://www.cde.ca.gov/ci/gs/hs/cpareport09.asp> (accessed 05/22/20).
16. As of October 2019, California replaced the term “at-risk” with “at-promise” but uses the same criteria, as follows: At-promise students are defined as those who meet at least three of the following six criteria: (1) having a poor attendance record, (2) being significantly behind in credits, (3) demonstrating low motivation for the regular school program, (4) being economically disadvantaged, (5) having low state test scores, and (6) having a low grade point average. Cal. Admin. Code tit. 2, § 54690 (2019). http://leginfo.ca.gov/faces/codes_displaySection.xhtml?sectionNum=54690.&lawCode=EDC.
17. Career Academy Support Network. (2011, October). *Profile of the California Partnership Academies*. Sacramento, CA: California Department of Education. <https://www.cde.ca.gov/ci/gs/hs/cpareport09.asp> (accessed 05/22/20).
18. California Department of Education. (2013, May 7). California Partnership Academies [Excel worksheet]. <https://www.cde.ca.gov/ci/gs/hs/documents/cpadirectory.xls> (accessed 01/30/20).
19. Rice, E., & Rutherford-Quach, S. (2012). *Linked Learning in Pasadena: Creating a collaborative culture for sustainable district reform*. Linked Learning Case Study Series. Stanford, CA: Stanford Center for Opportunity Policy in Education.
20. Los Angeles Unified School District. (n.d.). Linked Learning and Career Technical Education. <https://achieve.lausd.net/linkedlearning> (accessed 01/30/20).
21. California Department of Education. (2020). *Dropouts by ethnic designation by grade for the year 2007–08*. (John Muir High). DataQuest. <https://dq.cde.ca.gov/dataquest/DropoutReporting/GradeEthSchCE.aspx?cDistrictName=JOHN+MUIR+HIGH&cCountyCode=19&cDistrictCode=1964881&cSchoolCode=1936103&Level=School&ProgramName=All&cYear=2007-08&cAggSum=Random&cGender=B> (accessed 06/23/20); California Department of Education. (2020). *Dropouts by ethnic designation by grade for the year 2016–17*. (John Muir High). DataQuest. <https://dq.cde.ca.gov/dataquest/DropoutReporting/DrpGradeEth.aspx?cDistrictName=John+Muir+High&CDSCode=19648811936103&Level=School&TheReport=EthOnly&ProgramName=All&cYear=2016-17&cAggSum=Random&cGender=B> (accessed 06/23/20).
22. Rice, E., & Rutherford-Quach, S. (2012). *Linked Learning in Pasadena: Creating a collaborative culture for sustainable district reform*. Linked Learning Case Study Series. Stanford, CA: Stanford Center for Opportunity Policy in Education.
23. Rice, E., & Rutherford-Quach, S. (2012). *Linked Learning in Pasadena: Creating a collaborative culture for sustainable district reform*. Linked Learning Case Study Series. Stanford, CA: Stanford Center for Opportunity Policy in Education.
24. Rice, E., & Rutherford-Quach, S. (2012). *Linked Learning in Pasadena: Creating a collaborative culture for sustainable district reform*. Linked Learning Case Study Series. Stanford, CA: Stanford Center for Opportunity Policy in Education.
25. Rice, E., & Rutherford-Quach, S. (2012). *Linked Learning in Pasadena: Creating a collaborative culture for sustainable district reform*. Linked Learning Case Study Series. Stanford, CA: Stanford Center for Opportunity Policy in Education.
26. Unpublished data from Pasadena Unified School District, College & Career Academies Department (personal communication, 2020, January 23).
27. Envision Learning Partners. (n.d.). Graduate profile quality criteria check. http://teacher.justinwells.net/Downloads/GraduateProfile_QualityCriteria.pdf (accessed 01/29/20).
28. Staff. (2018, February 16). Pasadena Unified hosts town hall meetings on graduation requirements. *Pasadena Independent*. <https://www.pasadenaindependent.com/education/pasadena-unified-hosts-town-hall-meetings-graduation-requirements/> (accessed 06/23/20).

29. Unpublished data from Pasadena Unified School District, College & Career Academies Department (personal communication, 2017, January 31).
30. Hopkinson, A. (2017, April 12). High schools turning to student portfolios to assess academic progress [Blog post]. <https://edsources.org/2017/high-schools-turning-to-student-portfolios-to-assess-academic-progress/580147> (accessed 01/30/20).
31. Pasadena Unified School District Board of Education. (2014). *BP 6146.1 High school graduation requirements*. Pasadena, CA: Pasadena Unified School District.
32. Pasadena Unified School District Board of Education. (2014). *BP 6146.1 High school graduation requirements*. Pasadena, CA: Pasadena Unified School District.
33. Pellegrino, J. W., & Hilton, M. L. (Eds.). (2013). *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. Washington, DC: National Academies Press; Pasadena Unified School District Academics Department. (2016). *High school graduation requirements for the Class of 2019 and beyond* (p. 1). <https://www.pusd.us/cms/lib/CA01901115/Centricity/Domain/68/Graduation%20Req%20Packet%20for%20Parents%20rev%208-10-16.pdf> (accessed 06/23/20).
34. Pasadena Unified School District Board of Education. (2014, November 20). Board meeting notes. http://pusd.granicus.com/MediaPlayer.php?view_id=15&clip_id=522&meta_id=82574 (accessed 01/30/20).
35. Unpublished data from Pasadena Unified School District, College & Career Academies Department (personal communication, 2018, November 30).
36. KLRN Pasadena. (2018, March 29). PUSD Graduation Requirements Town Hall. (Video). <https://www.youtube.com/watch?v=sHnzegGrk8U> (accessed 01/30/20).
37. Name changed to protect confidentiality.
38. Unpublished data from Pasadena Unified School District, College & Career Academies Department (personal communication, 2018, November 30).
39. Pasadena Unified School District. (2018). *Orientation to High School Handbook 2018–2019*. Pasadena, CA: Pasadena Unified School District.
40. Unpublished data from Pasadena Unified School District, College & Career Academies Department (personal communication, 2018, November 30).
41. Sarian, M., & Valadez-Paez, S. (2017). PUSD graduate portfolio & defense [PowerPoint slides]. Oakland, CA: Linked Learning Convention 2017.
42. Pasadena Unified School District. (2018). *Orientation to High School Handbook 2018–2019*. Pasadena, CA: Pasadena Unified School District.
43. Darling-Hammond, L. (2014). *Next Generation Assessment: Moving Beyond the Bubble Test to Support 21st Century Learning*. San Francisco, CA: Jossey-Bass.
44. Unpublished data from Pasadena Unified School District, College & Career Academies Department (personal communication, 2017, January 31).
45. Unpublished data from Pasadena Unified School District, College & Career Academies Department (personal communication, 2018, November 30).
46. Darling-Hammond, L., & Adamson, F. (Eds.). (2014). *Beyond the Bubble Test: How Performance Assessments Support 21st Century Learning*. San Francisco, CA: Jossey-Bass.
47. Unpublished data from Pasadena Unified School District, College & Career Academies Department (personal communication, 2018, November 30).
48. Learning Policy Institute. (2017, November). *California Performance Assessment Collaborative CPAC newsletter*. Palo Alto, CA: Author. https://learningpolicyinstitute.org/sites/default/files/CPAC_Newsletter_Nov2017_v2.pdf (accessed 01/30/20).
49. Pasadena Unified School District. (2017). *Local Control Accountability Plan and annual update (LCAP) template*. <https://www.pusd.us/cms/lib/CA01901115/Centricity/domain/1277/lcap-lcff%20files/PUSD%20LCAP%202017-18%20FINAL%206.30.17.pdf> (accessed 01/30/20).

50. Pellegrino, J. W., & Hilton, M. L. (Eds.). (2013). *Education for Life and Work: Developing Transferable Knowledge and Skills in the 21st Century*. Washington, DC: National Academies Press.
51. Envision Learning Partners. (n.d.). Performance assessment: Theory of action. <https://envisionlearning.org/performance-assessment/> (accessed 03/26/20).
52. Darling-Hammond, L., & Adamson, F. (2010). *Beyond basic skills: The role of performance assessment in achieving 21st century standards of learning*. Stanford, CA: Stanford Center for Opportunity Policy in Education.
53. Darling-Hammond, L., & Adamson, F. (Eds.). (2014). *Beyond the Bubble Test: How Performance Assessments Support 21st Century Learning*. San Francisco, CA: Jossey-Bass.
54. Darling-Hammond, L., & Cook-Harvey, C. M. (2018). *Educating the whole child: Improving school climate to support student success*. Palo Alto, CA: Learning Policy Institute.
55. Available on the Learning Policy Institute website: <https://learningpolicyinstitute.org/product/cpac-district-initiatives-assess-student-learning>.
56. Maier, A., Adams, J., Burns, D., Kaul, M., Saunders, M., & Thompson, C. (2020). *Using performance assessments to support student learning: How district initiatives can make a difference*. Palo Alto, CA: Learning Policy Institute.
57. Yin, R. K. (2013). *Case Study Research: Design and Methods* (5th ed.). Thousand Oaks, CA: Sage Publications.
58. Johnson, S. (2020, April 16). California moves to close digital divide as schools shift online. *EdSource*. <https://edsources.org/2020/california-moves-to-close-digital-divide-as-schools-shift-online/629281> (accessed 08/26/20).
59. Newsom, G. (2020, March 17). *Executive Order N-30-20*. Sacramento, CA: Office of the Governor of the State of California.
60. Personal email with Pasadena Unified School District College and Career Pathways Coordinator (2020, April 16).
61. Personal email with Pasadena Unified School District College and Career Pathways Coordinator (2020, April 16).
62. Blanco, E. (2020, April 26). *Letter from the Office of the Chief Academic Officer*. Pasadena, CA: Pasadena Unified School District.

About the Authors

Julie Adams is a Research and Policy Associate at the Learning Policy Institute (LPI) and works on the institute's Deeper Learning research team. She is the co-author of *New Tech Network: Driving Systems Change and Equity Through Project-Based Learning* and *Deeper Learning Networks: Taking Student-Centered Learning and Equity to Scale*. At LPI, Adams is also a member of the institute's Reimagining College Access initiative, which focuses on the value performance assessments can have beyond high school. Before LPI, Adams was a research assistant at ETR, where she supported research on equity and inclusion in S.T.E.M. by looking at barriers in access to computer science education in both k–12 and postsecondary education settings. There, she also supported curriculum development for an after-school computer science program with a focus on social justice. Adams has a B.A. in Psychology from the University of California, Santa Cruz.

Maya Kaul is a former Research and Policy Assistant at LPI and a current doctoral student studying education policy at the University of Pennsylvania. At LPI, she was a key member of the California Performance Assessment Collaborative team. Previously, Kaul studied Finnish teacher education, professional development, and education policy at the University of Helsinki as a Fulbright Scholar. She holds a B.A. in Philosophy, Politics, and Economics (PPE) from Pomona College.



1530 Page Mill Road, Suite 200
Palo Alto, CA 94304
p: 650.332.9797

1301 Connecticut Avenue NW, Suite 500
Washington, DC 20036
p: 202.830.0079

@LPI_Learning | learningpolicyinstitute.org

The Learning Policy Institute conducts and communicates independent, high-quality research to improve education policy and practice. Working with policymakers, researchers, educators, community groups, and others, the Institute seeks to advance evidence-based policies that support empowering and equitable learning for each and every child. Nonprofit and nonpartisan, the Institute connects policymakers and stakeholders at the local, state, and federal levels with the evidence, ideas, and actions needed to strengthen the education system from preschool through college and career readiness.