



PERFORMANCE ASSESSMENT CASE STUDY SERIES

Using Performance Assessments to Support Student Learning in Los Angeles Unified School District

Marisa Saunders, Maya Kaul, and Charlie Thompson

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Table of Contents

Executive Summary	v
Introduction	1
District Context for Performance Assessments	3
About Los Angeles Unified School District	3
Historical Context of Performance Assessments in Los Angeles Unified	4
District Approach to Implementing Performance Assessments	5
How the Portfolio and Defense Works	7
The Portfolio	9
The Defense	11
Scoring and Feedback	11
Pedagogical Shifts	13
Systems of Support	16
Teacher Supports.....	16
School Administrator Supports	19
Student Supports.....	20
Funding and Technical Assistance.....	22
Conditions That Support a High-Quality Performance Assessment Initiative	23
Effective Linked Learning Onboarding Process	23
Latitude for Instructional Leadership at the Pathway Level	24
Treatment of Teachers as Professionals, Experts, and Leaders	26
Opportunities for Students to Build Relationships	29
Meaningful Learning for Students and Teachers	32
Broadening Student Outcomes.....	32
Supporting Instructional Practice and Improvement	36
Lessons Learned	40
Conclusion	42
Appendix A: Methodology	43
Appendix B: Los Angeles Unified School District Linked Learning Senior Graduation Portfolio Defense Rubric	46
Appendix C: Los Angeles Unified School District Linked Learning Problem-Solving Rubric	48
Appendix D: Los Angeles Unified School District Linked Learning Argumentation Rubric	50

Appendix E: Los Angeles Unified School District Linked Learning Analysis Rubric	52
Appendix F: Pathway-Level Flexibility Supported by Districtwide Professional Development in a Pandemic	53
Endnotes	54
About the Authors	59

List of Figures and Tables

Figure 1 Portfolio Requirements Example	9
Figure 2 Portfolio Artifact Matrix Example	10
Figure 3 Task Quality Criteria Tool for Multidisciplinary Projects, Criterion One: Focus on Deeper Learning	14
Table 1 Los Angeles Unified and California, at a Glance (2018–19)	4

Executive Summary

The senior defense communicates academic growth.... We're fortifying what we know. We're getting to tell [teachers] what we know.... We're not randomly guessing on a test. They understand what we're taking with us when we depart [high school].

This sentiment, expressed by a student from the Los Angeles Unified School District (Los Angeles Unified), describes one experience with the performance assessment called the portfolio and defense. To complete the portfolio and defense, students collect artifacts and evidence of their content knowledge and growth while in high school, reflect on those artifacts, and present this evidence along with a reflection to a panel of peers, educators, and community members. This panel determines each student's readiness to graduate from high school using a shared rubric to assess the quality of each student's artifacts and presentation.

In Los Angeles Unified, high school seniors who attend a Linked Learning pathway—an industry-themed school or small learning community within a school—complete a portfolio and defense. Linked Learning is an approach to education, delivered in an industry-aligned “pathway,” that aims to increase the relevance of education by bringing together strong academics, career and technical education, real-world learning experiences, and integrated student supports. For example, a student in an Arts, Media, and Entertainment–themed Linked Learning pathway might complete an internship with a graphic design firm in addition to taking related career and technical arts classes and classes in core academic content. The district adopted the Linked Learning approach in 2010, and Los Angeles Unified's Linked Learning Office has set a goal for its Linked Learning graduates, articulated through a graduate profile: They will be able to reach proficiency in content knowledge and build their critical thinking, collaboration, creativity, and digital skills. The district's Linked Learning Office uses the portfolio and defense to assess how proficient its graduates are at meeting these goals, which also serve as a natural complement to this emphasis on authentic, integrated learning.

Performance assessments can encompass a spectrum of tasks—from writing a short response to conducting and analyzing a laboratory investigation—that all require students to construct an original response that shows evidence of what they know and can do. As such, performance assessments can measure higher-order thinking and reasoning skills, as well as the ability to apply learning to solve meaningful problems. In addition, they can provide an opportunity for students to experience academic learning as interdisciplinary and connected, as is the case in Los Angeles Unified's Linked Learning pathways.

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 Los Angeles Unified case study is based on the analysis of a range of data sources, including documents, interviews with school- and district-level personnel, focus groups with teachers and students, observations of student performance assessments, and observations of professional learning opportunities for teachers. The study is not an evaluation of Los Angeles Unified as a whole or of the success of the portfolio and defense within the district. Instead, the study provides an in-depth description of how Los Angeles Unified has attempted to advance implementation of the portfolio and defense.

Our analysis of data from Los Angeles Unified suggests that the key conditions supporting the district's performance assessment system are:

- an effective Linked Learning onboarding process;
- latitude for instructional leadership at the pathway level;
- treatment of teachers as professionals, experts, and leaders; and
- opportunities for students to build relationships.

Based on students' and teachers' views of the outcomes of these performance assessments derived from one-on-one interviews and focus groups, we found that the portfolio and defense provides opportunities for:

- student and teacher reflection on learning and growth;
- social and emotional learning for students;
- rigorous and relevant college and career preparation;
- improved communication skills;
- continuous improvement of instruction;
- greater alignment of curriculum, instruction, and assessment;
- deeper peer relationships among teachers; and
- deeper teacher–student relationships.

We conclude by identifying four lessons learned from Los Angeles Unified's performance assessment that are based on these findings. These lessons include:

1. **Districts can establish an opt-in system for performance assessments, as well as strong onboarding, to help cultivate school-level ownership.** In Los Angeles Unified, the opt-in Linked Learning onboarding process encourages schools to implement the portfolio and defense after their Linked Learning pathway has been established. Once ready to implement the portfolio and defense, educators are required to attend professional learning opportunities and trainings. The process assists schools in understanding the role of the portfolio and defense in preparing students for college, career, and civic life. The onboarding process can promote greater understanding of Linked Learning and of the portfolio and defense because it requires participants to self-select into this approach to learning.
2. **Districts can balance structured supports with flexibility that allows sites to make the performance assessment work their own.** In Los Angeles Unified, district-led professional learning and coaching support is not standardized but instead is adapted to each Linked Learning pathway (an industry-themed school or small learning community that integrates work-based learning, career and technical education, and academic content). This professional learning is intended to elevate best practices and assist pathways in

identifying and establishing the strategies that will work best for their particular context while still meeting overall district goals. In this context, professional learning develops the skills and the knowledge to establish a cohesive team at the pathway level that can come together to plan, problem-solve, and work toward continuous improvement of the portfolio and defense. Teachers are able to build a community of practice in which they can establish norms and protocols for shared learning and understanding.

3. **Districts can establish school structures and spaces that build relationships among students and staff.** In Los Angeles Unified, the smaller learning environments used in portfolio and defense implementation can foster relationships and facilitate collaboration, as students work in teams on interdisciplinary projects that have a relevant purpose. This work can take place in a Linked Learning pathway within a comprehensive high school, an advisory class, or a small group within a class. These smaller learning environments support students in being known by their peers and teachers in more profound ways. These spaces also establish the norms and practices that can foster successful implementation of performance assessments such as the portfolio and defense.
4. **Alignment of performance assessments and the broader instructional and curricular climate and practices of the district is critical.** A key role of the Los Angeles Unified Linked Learning Office is to create coherence across schools—to ensure that the distinctive features of each Linked Learning pathway continue to meet broader district goals and expectations. As such, the Linked Learning Office has worked to integrate portfolio and defense practices with district expectations for all Los Angeles Unified graduates. Integrative efforts, including the delivery of a wide range of implementation supports such as professional learning and coaching, assist in aligning the portfolio and defense system with the broader instruction and practices of the district. These efforts can also situate the work of the Linked Learning Office, which is positioned under the Division of Instruction in Los Angeles Unified, as central to ongoing curriculum and instruction improvement efforts.

Taken together, these practices in Los Angeles 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

The ideal Los Angeles Unified School District (Los Angeles Unified) graduates are able to reach proficiency in content knowledge and build their critical thinking, collaboration, creativity, and digital skills.¹ The profile of this ideal graduate has been influenced by the Linked Learning initiative, which is working to transform high school education into a personally relevant and engaging experience that brings together strong academics, career and technical education, real-world learning experiences, and integrated student supports. Linked Learning is delivered through “pathways”—industry-themed programs of study that connect students’ learning to the real world and are designed to ensure students have the academic and technical skill proficiencies to be college and career ready upon graduation. Performance assessments serve as a natural complement to Linked Learning pathways’ emphasis on authentic, integrated learning. These assessments also serve as a vehicle for students to demonstrate their achievement of expected learning outcomes, which are aligned to state standards and defined by the district and by each pathway through its pathway student learning outcomes.

Performance assessments require students to perform a task to demonstrate proficiency. These assessments can range from essays and open-ended problems on sit-down tests to classroom projects. The Linked Learning Office, which supports the implementation of the Linked Learning approach in schools within Los Angeles Unified, has developed a performance assessment system referred to as the “portfolio and defense” to measure students’ readiness to graduate from high school prepared for success in college, career, and life. This readiness is demonstrated by learning outcomes that highlight critical thinking, collaboration, communication, and citizenship skills. The portfolio and defense requires students to curate a collection of their work into a portfolio and then defend that work, at the end of their senior year, through an oral presentation to a panel of teachers, administrators, and local community members. In doing so, graduating students are engaged in the self-study that they will need to fulfill their postsecondary plans.

The portfolio and defense is the result of iterative development within the district’s Linked Learning Office. The work began in 2014–15, when a group of Los Angeles Unified teachers and principals visited Envision Academy of Arts and Technology (EA) in Oakland and observed its portfolio and defense model.² This visit provided the impetus and the initial teacher leadership for the district’s Linked Learning Office to adopt the portfolio and defense model as part of its broader program-wide strategy.

Los Angeles 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.³ Recent reviews of the literature show that well-designed performance assessments can provide the opportunity for students to demonstrate readiness through 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.⁴ Further, these reviews demonstrate that performance assessments not only can reliably measure learning outcomes for individual students and trends in outcomes for different student racial/ethnic groups, but also can have implications for curriculum, instruction, and school design.⁵

A performance assessment such as Los Angeles Unified's portfolio and defense gives students the opportunity to demonstrate complex thinking, creativity, communication, and civic skills. The portfolio and defense helps them make connections across the curriculum, demonstrate their growth as learners and community members, and reflect on how their education contributes to their preparation for the future. This process can both enhance student learning and support teachers in understanding where to address instructional gaps.

A performance assessment such as Los Angeles Unified's portfolio and defense gives students the opportunity to demonstrate complex thinking, creativity, communication, and civic skills.

In its portfolio and defense work, Los Angeles Unified draws on the support of a statewide learning community, 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. CPAC participants work with a broad range of students and implement their learning to improve the experience of those students.

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. The other two cases focus on Pasadena Unified School District and Oakland Unified School District. Our research team also analyzed 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 report.⁶

The Los Angeles Unified research team conducted interviews with district- and school-level leaders and teachers, held student and teacher focus groups, and observed both district-led professional learning sessions for teachers and students' portfolio and defense. Three Los Angeles Unified sites were selected for the study based on their years of experience with portfolio and defense implementation (ranging from "experienced" to "emerging"), as well as their geographic and organizational diversity. The case study draws on these data to inform the analysis. (See Appendix A for more information on the methods used in this study.) The study is not an evaluation of Los Angeles Unified as a whole or of the success of the portfolio and defense process within the district. Instead, the study provides an in-depth description of how Los Angeles Unified has implemented the portfolio and defense.

This report begins with a description of the district context and a brief history of how performance assessments have become a key component of Los Angeles Unified's vision of a high school graduate. Then, we provide a descriptive look at the components that define Los Angeles Unified's performance assessment practices and describe what our analysis suggests are the key conditions supporting that system. Next, we explore participants' perceptions of student and teacher outcomes based on one-on-one interviews and focus groups. Based on these findings related to system supports and perceived outcomes, we identify some lessons learned from Los Angeles Unified's performance assessment.

The cross-case report that is related to this case study 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.⁷

District Context for Performance Assessments

To understand Los Angeles Unified’s performance assessment work, it is helpful to consider the district’s demographic information and historical context. Over the past decade, performance assessments in this demographically diverse district have been led by Los Angeles Unified’s Linked Learning Office. The portfolio and defense model emerged in Los Angeles Unified as a natural complement to the Linked Learning approach to preparing college- and career-ready graduates.

About Los Angeles Unified School District

Los Angeles Unified School District (Los Angeles Unified) is one of the largest school districts in the United States, second only to the New York City public school system. The district spans more than 720 square miles, reaching portions of 31 smaller municipalities beyond the city of Los Angeles, and in 2018–19 included more than 600,000 students.⁸ (See Table 1.) Of these students, 74% are Latino/a, with the remainder of the student population comprising primarily White, African American, Asian, Filipino/a, and Pacific Islander students. A high percentage of students from low-income families are enrolled in the district, with 81% of Los Angeles Unified students identified as such—20 percentage points above the statewide level.⁹

The focus of the district’s strategic plan for 2016–19 is to “direct its efforts and resources to recruit, develop and support principals and teachers in creating a learning environment that ensures 100% of students achieve and graduate.”¹⁰ In 2018–19, Los Angeles Unified reached a 78% cohort graduation rate—slightly up from 77% in 2017 and 76% in 2016.¹¹ However, these rates remain below the 2018–19 statewide graduation rate of 88%.¹²

Los Angeles Unified performs slightly lower on standardized test scores in both math and English language arts than the statewide average; however, students from low-income families, who make up a larger proportion of the district total compared to the state, perform higher on standardized tests.¹³ The same holds true for all Los Angeles Unified students’ completion rates on the series of college preparatory courses—the “A–G” course requirements—which students must pass with a grade of C or better to be eligible for admission to California’s public university system.¹⁴ In 2018–19, 60% of Los Angeles Unified graduates met the A–G course requirements for University of California and California State University (UC/CSU) admission, compared to 50% of graduates statewide. African American graduates from Los Angeles Unified met the A–G course requirements for UC/CSU admission at higher rates than their African American peers statewide (47% compared to 40% statewide), as did Latino/a graduates (58% compared to 44% statewide).¹⁵

Table 1
Los Angeles Unified and California, at a Glance (2018–19)

	Los Angeles Unified	California
Student Enrollment	607,723	6,186,278
Schools	1,009	10,521
Race/Ethnicity	<ul style="list-style-type: none"> • 74% Latino/a • 8% African American • 11% White • 6% Asian, Filipino/a, or Pacific Islander • 1% Other or Not Reported 	<ul style="list-style-type: none"> • 55% Latino/a • 5% African American • 23% White • 12% Asian, Filipino/a, or Pacific Islander • 5% Other or Not Reported
Students From Low-Income Families^a	81%	61%
English Learners^b	20%	19%
Students With Disabilities	14%	13%
4-Year Adjusted Cohort High School Graduation Rate	78%	88%
11th-Grade Smarter Balanced Assessment Performance (non-charter students)	<ul style="list-style-type: none"> • 51% proficient for English language arts • 24% 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	60%	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.

Historical Context of Performance Assessments in Los Angeles Unified

The landscape of performance assessments in Los Angeles Unified today has been shaped by the work carried out over the past decade by the Linked Learning district initiative. Launched in 2009 by the James Irvine Foundation, the initiative was originally piloted in nine districts across California. The Linked Learning approach is designed to prepare college- and career-ready high school graduates through a high-quality program of study that integrates a college preparatory curriculum with a rigorous career technical education sequence and work-based learning opportunities. To date, the Linked Learning approach has expanded to more than 500 schools across 100 school districts in California.¹⁶

The Linked Learning initiative was formally introduced to Los Angeles Unified in March 2010 through funding administered by ConnectED: The National Center for College and Career—a technical assistance partner that provides professional supports to schools and districts. The work is now led by the Los Angeles Unified Linked Learning Office. The hallmark of the Linked Learning approach is its pathways: industry-themed programs of study designed to ensure students have the academic and technical skill proficiencies to be college and career ready upon graduation.¹⁷ A pathway can be organized as an autonomous school or as a small learning community (SLC) within a larger high school.

Each pathway is associated with one of the following 10 industry sectors:¹⁸

1. Agriculture and Natural Resources
2. Arts, Media, and Entertainment
3. Business and Finance
4. Education, Child Development, and Family Services
5. Energy, Environment, and Utilities
6. Engineering and Architecture
7. Health Science and Medical Technology
8. Hospitality, Tourism, and Recreation
9. Information and Communication Technology
10. Public Services

When fully developed, a Linked Learning pathway provides a hands-on curriculum that allows students to engage with projects and authentic forms of assessment that are tied to the industry theme and allow students to demonstrate breadth, depth, and application of learned skills. The “tasks and projects in Linked Learning pathways are often multidisciplinary and problem-based, and connections to the real world aim to be authentic and transparent.”¹⁹ Students learn in small cohorts to allow them to develop relationships with their peers and teachers that can support their learning.

Los Angeles Unified has grown from implementing 6 formally identified pathways during its initial pilot in 2010 to implementing 66 Linked Learning pathways across 37 schools in 2018–19. Pathways are geographically represented in all six of Los Angeles Unified’s local districts, and the Linked Learning Office strives to ensure that pathway enrollment is representative of the district’s demographics. Linked Learning pathway growth is part of an opt-in strategy employed by the district. With the opt-in approach, potential pathways must participate in a rigorous onboarding process. In order for a pathway to be considered, support is required from at least three fourths of educators at the school or SLC. Onboarding includes the commitment of considerable resources and professional development from the Linked Learning Office to support the project-based, integrated learning that comprises the approach.

District Approach to Implementing Performance Assessments

Los Angeles Unified’s use of performance assessments has emerged as a natural extension of its work with Linked Learning pathways. Performance assessments serve as an organic complement to pathways’ emphasis on authentic, integrated learning. Pathways are structured to allow teachers to collaborate on their curricula across disciplines and to supplement coursework with work-based learning opportunities provided by industry partners.²⁰ Project-based learning is central to Linked

Learning pathways because it supports the implementation of integrated projects across disciplines. Project-based learning also provides students with an opportunity to connect their work with career and technical education—for example, all schools implementing Linked Learning pathways require students in 9th through 12th grade to complete an interdisciplinary, pathway-aligned project each semester, which often results in students presenting their projects to representatives from their chosen industry.²¹ Indeed, performance assessments serve as a natural vehicle for students to demonstrate their achievement of expected learning outcomes, as defined by the Linked Learning Office and each pathway.

The portfolio and defense model that has emerged in Los Angeles Unified complements the Linked Learning pathways' goal of preparing college- and career-ready graduates. Though several pathways were already implementing performance assessments independently, the Linked Learning Office team committed to intentionally scaling such assessments across all pathways during the 2014–15 school year, when a group of Los Angeles Unified teachers and principals visited Envision Academy of Arts and Technology (EA) in Oakland and observed its portfolio and defense model.²²

This visit provided the impetus and the initial teacher leadership for the district's Linked Learning Office to adopt the portfolio and defense model as part of its broader program-wide strategy. To achieve this, staff from the district's Linked Learning Office designed the portfolio and defense model to build on existing curricula. Students are encouraged to include assignments they complete as part of Linked Learning's project-based curriculum in their portfolios. In this system, the portfolio and defense serves as a natural culmination of the high school experience for 12th-grade students.

In the 2018–19 school year, 40 of the district's 66 Linked Learning pathways implemented the portfolio and defense model, and the district is working to expand the model to the remaining pathways at the high school level.²³ During the 2018–19 academic year, approximately 24% of Los Angeles Unified high schools were engaged in the implementation of the portfolio and defense, with about 4,000 12th-grade students, or 14% of Los Angeles Unified seniors, enrolled in Linked Learning pathways that have the portfolio and defense.²⁴ In the same year, approximately 90 teachers served as advisors to seniors who were involved in the implementation of the portfolio and defense.²⁵ As the district's approach to high school reform, Linked Learning pathways were present in 28% of Los Angeles Unified high schools in 2018–19.²⁶

Los Angeles Unified's strategy to cultivate interest in Linked Learning and the portfolio and defense is to highlight the work through an annual showcase, principal meetings, and Defense Design Studios that include a live student defense. These tactics are meant to encourage schools to opt in to the Linked Learning approach, while not rushing the pace for schools that are not yet ready to make the shift. As a growing number of Los Angeles Unified high schools transition to Linked Learning through an onboarding process that gauges schools' readiness and commitment to the approach, the number of high schools expected to implement the portfolio and defense model will also increase.

In addition to Los Angeles Unified schools implementing performance assessments as defined and supported by the Linked Learning Office, Los Angeles Unified is working to integrate performance tasks in mathematics and in science courses. The district's Division of Instruction currently provides an online professional development module that highlights performance tasks as critical components of a continuous improvement cycle and as helpful tools for formative assessment of student progress.

How the Portfolio and Defense Works

A Reflection on Growth

The classroom quickly settles down, and 12th-grade student Erik²⁷ stands in professional attire at the front of the classroom with a small stack of note cards in his hands, awaiting a cue to begin his presentation. Before him sit the six members of his senior portfolio defense panel—including a mix of teachers he has had in classes as well as several who are new to him. About a half dozen other seats are filled with external observers and several of Erik’s friends, who are there to offer support. After the panelists introduce themselves and Erik introduces his friends, he is ready to begin his senior portfolio defense.

Erik is here to demonstrate why and how he has achieved the graduation competencies of his pathway: art, communication, critical thinking, collaboration, citizenship, and forward thinking.

His presentation begins on a personal note. Projected on the screen behind Erik is a presentation titled “Transformation of the Boy Who Almost Gave Up.” He shares that, when he enrolled in this pathway only a few years ago, he did not speak English. He had immigrated to the United States from El Salvador shortly after his mother died, and it was at his Linked Learning pathway that he found his academic passions: He plans to become a history teacher “to become a role model like [his] teachers have been for [him].”

After sharing his personal context, Erik dives into the rest of his presentation, beginning with a discussion of his first artifact—a set design for a school play. For each of his three artifacts, Erik walks the audience through the requirements for the assignment, a summary of his work, and a reflection on how this work demonstrates his acquisition of pathway student learning outcomes—all while using his presentation to share direct evidence of and reflect on his learning and personal growth.

When sharing his second set of artifacts—a side-by-side comparison of an essay he wrote on *Macbeth* in 10th grade and a policy advocacy paper he wrote in 12th grade on the topic of immigration—Erik makes direct connections between his personal and academic growth. As evidence of this growth, Erik shares scanned images of the worksheets his teachers had provided him to scaffold his brainstorming before he wrote each paper. Noting the “lack of effort” he put into his 10th-grade paper, he shows his extensive planning for his 12th-grade paper and identifies the ways this effort helped him more effectively complete the final assignment and gain confidence in his English knowledge.

After each artifact is presented, the panel takes a few minutes to engage in a brief question-and-answer session, which typically allows panelists to push a student’s thinking around academic concepts and reflection. This questioning can help the student provide additional information or detail that may have been missed during the presentation. When asked how the skills he acquired through the senior portfolio defense process have prepared him for his future, Erik confidently responds that, in his future as a history major, he will need to learn to synthesize large amounts of evidence, find relationships between ideas, and consider alternative viewpoints—all skills he has acquired in his time at the pathway.

After a final question-and-answer session in which the panelists ask Erik to reflect on the senior portfolio defense process at large, the time comes for Erik to exit the room and for the panelists’ deliberations to begin. The facilitating panelists work through the rubric, domain by domain, before

deciding he has clearly passed his senior portfolio defense. They agree that a strength of his presentation was his metacognition, and a potential area for growth is to practice certain sections of his presentation more so that he presents himself with professionalism.

Upon completing the deliberation process, the panelists invite Erik back into the room and share their feedback and the good news: He has passed his 12th-grade portfolio defense and will be graduating in the spring.

Erik's senior portfolio defense experience is emblematic of the depth of learning, personal growth, and college preparation that Los Angeles Unified strives for students to experience in the district's emerging performance assessment system. Performance assessments, such as the portfolio and defense model, place an emphasis on assessing higher-order thinking skills, driving high-quality instruction, and supporting the development of deep content knowledge in order to support 21st-century learning outcomes.²⁸ Erik's experience serves as a model for how such assessments can shift curricula toward more meaningful content and instructional practices that directly encourage students to think critically about how their schoolwork is connected to their postgraduation plans and their own identities. The central question Los Angeles Unified asks students to answer through the portfolio and defense system is, "How am I prepared for college, career, and life?"²⁹

In Los Angeles Unified, each portfolio and defense is highly individual, yet all give students the opportunity to demonstrate why and how they have met the graduation competencies of their pathways. (See "A Reflection on Growth" above.) In addition, all Los Angeles Unified Linked Learning pathways orient their work to meet the following requirements of the district's "Theory of Action":³⁰

1. Define a **graduate profile** for the learner that includes the knowledge, skills, and attributes that all Los Angeles Unified graduates should have and be able to demonstrate.
2. Design a **performance assessment (i.e., the portfolio and defense)** that measures that graduate profile.
3. Implement **pedagogies** and **school structures** that lead to success on that performance assessment.

The district's graduate profile aims to define college and career readiness for students, guide the authentic assessment of student learning, and align with local accountability measures. In draft form as of spring 2020, this profile defines the knowledge, skills, and attributes students should be able to demonstrate to show their readiness for college, career, and civic life. The profile includes demonstrations of self-advocacy, adaptability, open-mindedness and ethics, and effective communication. Although the profile is identified in the district's strategic plan for 2016–2019 and in its 2015–2018 College and Career Readiness Plan, the graduate profile continues to be under review as of spring 2020 for official adoption by the school board.³¹

Meanwhile, each Linked Learning pathway develops a defined set of expected pathway student learning outcomes (such as scientific inquiry, analysis and research, argumentation, and problem-solving) that align with the district's graduate profile.³² The portfolio and defense measures students' readiness to graduate high school prepared for success in college, career, and life as defined by the graduate profile and pathway student learning outcomes. The portfolio and defense, its scoring, and the accompanying pedagogical shifts comprise the key components of Los Angeles Unified's performance assessment system.

The Portfolio

The portfolio is meant to serve as a collection of evidence, gathered over a period of time, that gives insight into a student’s growth in understanding and skill development. As part of the portfolio and defense, students develop an individual graduation portfolio containing 10 artifacts—selected student work such as essays, art projects, or science labs—accompanied by a graded rubric of their assignment to demonstrate that they have achieved pathway and district outcomes. Portfolio structures vary across pathways, although the district recommends organizing the artifacts into three categories, as shown in Figure 1.

Figure 1
Portfolio Requirements Example

Academic Preparedness
<ul style="list-style-type: none">• Analysis (e.g., historical research paper, literary analysis essay, science lab)• Argument (e.g., science-based editorial, economics argument paper, speech on a current event)• Problem-solving (e.g., long-form mathematics problem, theater set design proposal)
Work Readiness
<ul style="list-style-type: none">• Professional Resume• Job Application• Mock Interview (e.g., rubric accompanied by a picture and/or reflection)
Personal Accomplishments
<ul style="list-style-type: none">• Growth Over Time (students are asked to select one of the Academic Preparedness competencies to demonstrate their growth over time by comparing at least two artifacts in different years)• Personal Statement• Community Engagement• Pathway-Specific Student Accomplishment (students are asked to select an artifact that represents both present accomplishments and future promise and is aligned to the pathway theme)

Sources: Los Angeles Unified Linked Learning. (n.d.). Portfolio artifacts. <http://lausdportfoliodefense.weebly.com> (accessed 09/24/18); personal email with Los Angeles Unified Linked Learning staff member (2018, September 18).

Some Linked Learning pathways provide students with templates for digital portfolios. The Los Angeles Unified Linked Learning Office also provides examples of digital student portfolios as a resource for students.³³

Regardless of the particular portfolio format employed, students are expected to provide a written reflection on each of their artifacts, addressing the following prompts:³⁴

- **Introduce and contextualize the artifact.** Where does it come from? How did you create it? Why did you choose it?
- **Analyze the artifact.** Explain in detail how it represents a competency (e.g., analysis, problem-solving, community engagement, etc.) and a pathway learning outcome.

- **Reflect on your understanding of that competency.** How have you grown in your ability to demonstrate this competency? What progress do you still need to make? How does this artifact connect with life outside of school and your future?

Though there is some variation in when students in a Linked Learning pathway first engage in work related to their portfolios, the district’s Linked Learning Office advises all pathways to start guiding students through the performance assessment process early in high school. The Linked Learning Office also suggests assigning interdisciplinary, project-based assignments focused on career and technical information at least twice a year, starting in 9th grade.⁵⁵

In some instances, the portfolio has been integrated into curricula as early as middle school. At one middle school pathway, for example, students complete a 5-week unit that features a mini portfolio and defense model.⁵⁶ The portfolio-building process is scaffolded so that the portfolio and defense exercise informs the instruction students receive over time, rather than being an isolated experience that they may or may not be prepared to engage in meaningfully. Figure 2 provides an example of how a pathway might help students build a collection of artifacts beginning in 9th grade.

Figure 2
Portfolio Artifact Matrix Example

Area	9th Grade	10th Grade	11th Grade	12th Grade
College Preparedness	<ul style="list-style-type: none"> • Analysis • Argument • Problem-solving • Inquiry 	<ul style="list-style-type: none"> • Analysis • Argument • Problem-solving • Inquiry 	<ul style="list-style-type: none"> • Analysis • Argument • Problem-solving • Inquiry 	<ul style="list-style-type: none"> • Analysis • Argument • Problem-solving • Inquiry
Work Readiness	—	<ul style="list-style-type: none"> • Resume 	<ul style="list-style-type: none"> • Resume (revised) • Job Application • Mock Interview 	<ul style="list-style-type: none"> • Resume (revised)
Personal Accomplishments	<ul style="list-style-type: none"> • Community Engagement • Student Accomplishment 	<ul style="list-style-type: none"> • Community Engagement • Student Accomplishment 	<ul style="list-style-type: none"> • Community Engagement • Student Accomplishment 	<ul style="list-style-type: none"> • Community Engagement • Student Accomplishment • Personal Statement
Total # of Artifacts	6	7	9	8
Total # of Artifacts by Spring Semester in Preparation for the Senior Defense	6	13	21 ^a	28 ^a

^a Resume is only counted once, 10th grade.

Source: Adapted from Los Angeles Unified Linked Learning Office. (2017). *Portfolio-defense handbook 2017–18: A guide for Los Angeles Unified Linked Learning pathways*. Los Angeles, CA: Author. https://docs.google.com/document/d/1mf7SG_8OpYotoVoCKNi6j8luYKfEub94WUU19UqiXuE/edit (accessed 12/24/19).

Los Angeles Unified’s Linked Learning Office also suggests that teachers guide students through the process of selecting work to include in their portfolio once a year throughout high school. This guidance takes place during advisory—a regularly scheduled class time during which teachers offer academic and nonacademic guidance to a small community of students. This use of advisories is a critical structure of support in Los Angeles Unified’s performance assessment system because it provides students with the time and space to work on and receive feedback on their portfolio and defense work, as described later in this report. The final portfolio that students put together in 12th grade is composed of artifacts that they have generated throughout their high school careers and that they have identified as exemplars of their college and career readiness. The district’s Linked Learning Office recommends that once students have selected the artifacts they would like to include in their portfolio, content area teachers review the work to determine whether it reflects the proficiency necessary for inclusion in the final portfolio. At the end of this process, a student’s advisory teacher then determines whether the portfolio is complete.³⁷

The Defense

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

1. **Individual Presentation** (*suggested time of 15 minutes*)—student introduces presentation and defends selected artifacts in front of a panel of judges
2. **Use of Technology**—well-produced audiovisual aids or media
3. **Question-and-Answer Session** (*suggested time of 5 minutes*)—a demonstration of growth, reflection, and self-evaluation³⁸

According to district guidelines established by the Linked Learning Office, student presentations are designed to take roughly 15 minutes. After students complete their presentations and go through the question-and-answer session with panelists, they leave the room while the panelists deliberate on a score to determine whether or not individual students pass. Sites, however, are strongly encouraged to modify the senior portfolio defense process in ways that best meet the needs of the particular Linked Learning pathway. Across the three sites we observed, student defenses lasted approximately 10–15 minutes at two sites and 45 minutes at the third site.

Scoring and Feedback

Los Angeles Unified recommends that the portfolio and defense be graded separately. The district is encouraging Linked Learning pathways to adopt uniform rubrics for assessing both the individual artifacts within the portfolio and the senior defense presentation. However, these have not yet been fully adopted across pathways.

The rubrics for the portfolio artifacts are aligned with the key pathway student learning outcomes that Linked Learning pathways strive toward, such as scientific inquiry, analysis and research, argumentation, and problem-solving. For example, within the rubric for scientific inquiry, the scoring domains include elements such as “designing the investigation,” “identifying variables,”

“collecting data,” and “communicating findings”—mapping onto the empirical structure of the scientific method. These rubrics provided by the district serve as a template, and each pathway is encouraged to modify them to align with the pathway student learning outcomes.

The Senior Defense Rubric is designed to measure “the preparation, reflection, and quality of the student’s presentation skills.”³⁹ This rubric includes the following five scoring domains:

1. **Mastery of Knowledge:** What does this student know?
2. **Application of Knowledge:** What can this student do?
3. **Metacognition:** How reflective is this student?
4. **Presentation Skills:** What is the evidence that the student can give a formal presentation?
5. **Questions and Comments:** What is the evidence that the student can respond to spontaneous questions appropriately?

The rubric has space for Linked Learning pathways to customize their feedback on the senior portfolio defense with regard to how well a student achieves the specific outcomes of that pathway. (See Appendices B, C, D, and E for artifact and defense rubrics provided by the Los Angeles Unified Linked Learning Office.)

The district provides a Defense Note-Taking Guide and a Defense Scoring Protocol to aid panelists during the senior portfolio defense process.⁴⁰ The district also provides guidance to schools on how to “calibrate” panelists’ scoring before they serve on a defense panel, though these practices are still being aligned across pathways.⁴¹ At calibration sessions, scorers calibrate by comparing and discussing their scores to make sure that all scorers are using the rubric in a similar manner and hold similar expectations for student performance, thus validating the senior portfolio defense process and scores regardless of who is on a judging panel. Some Linked Learning pathways also offer online training or in-person training on the day of senior defenses.

After all panelists have scored a defense, they deliberate to reach agreement on whether the student passed or must resubmit the senior portfolio defense. The Linked Learning Office provides a video through its website to serve as an example of the deliberation process.⁴² The district encourages Linked Learning pathways to avoid a pass/fail dichotomy and to instead promote a system wherein all students will succeed through revision. Any student who does not pass the senior portfolio defense is asked to resubmit.

The district encourages Linked Learning pathways to avoid a pass/fail dichotomy and to instead promote a system wherein all students will succeed through revision. Any student who does not pass the senior portfolio defense is asked to resubmit.

The role of these performance assessments in determining students’ graduation status varies across the district. Students who have been asked to resubmit the senior portfolio defense often work with a mentor teacher to address panelists’ feedback and to make the necessary improvements to pass the senior portfolio defense. Although resubmission practices vary by pathway, the district suggests that students be given multiple opportunities to resubmit their defenses, particularly if achieving a passing score is a requirement to graduate or to participate in graduation activities.⁴³

In some Linked Learning pathways, students are allowed to walk at their graduation ceremony and then complete the necessary work to pass their senior portfolio defense afterward. Other Linked Learning pathways require students to successfully complete their senior portfolio defense to participate in graduation activities. Only those pathways that are granted autonomy through a Los Angeles Unified innovative reform model that grants schools increased local autonomy may deny graduation to students who have not passed the portfolio and defense; however, no school has formally instituted such a policy.⁴⁴ The Los Angeles Unified Portfolio-Defense Handbook 2017–18 provides a more comprehensive guide to the portfolio and defense to supplement the overview provided above.⁴⁵

Pedagogical Shifts

Alongside the shifts in student assessment, Los Angeles Unified’s portfolio and defense model supports shifts in how teachers develop and implement performance tasks for students to engage with subject-related content knowledge. Performance tasks are hands-on assignments such as science labs or research papers that allow students to demonstrate mastery of a skill and/or content area and provide tangible evidence of their learning. Performance tasks are designed to challenge students to put their skills and knowledge to use.

In light of research indicating that tasks that yield consistent and meaningful results require strong review, field testing, and rubrics, ConnectED: The National Center for College and Career has developed a performance assessment rubric to evaluate the quality of educator-designed performance tasks.⁴⁶ This rubric is grounded in a large body of research from organizations and networks such as Stanford Center for Assessment, Learning and Equity (SCALE); Stanford Center for Opportunity Policy in Education (SCOPE); and the Center for Collaborative Education. For example, the rubric draws on research from SCALE that aligns Common Core State Standards instruction with assessments that measure students’ mastery of core subjects and higher-order skills.⁴⁷

Since the adoption of the performance assessment rubric, the Linked Learning Office has supplemented that tool with resources that provide pathway staff with additional guidance for evaluating performance assessment quality.⁴⁸ A performance assessment quality criteria checklist, comprising seven criteria, helps staff reflect on and receive feedback on the design of their own performance tasks, with an emphasis on meeting particular content standards and providing students with opportunities to demonstrate college and career readiness (see Figure 3 for an example of one criterion). This comprehensive checklist was updated in 2019 to increase attention to the language demands of performance assessments and supports for special needs learners.

Figure 3
Task Quality Criteria Tool for Multidisciplinary Projects, Criterion One:
Focus on Deeper Learning

Quality Criteria	Quality Rating	Evidence or Rationale	Suggestions for Revision
a. The standards (Common Core State Standards, Math Practices, and/or New Generation Science Standards) selected for the project are clearly listed in a planning template, developmentally appropriate for target students, and aligned to grade-level scope and sequence. Project components, resources/materials, and student products are aligned to the listed standards.			
b. The project provides opportunities for students to demonstrate evidence of important college-readiness skills, including: <ul style="list-style-type: none"> • Deeper learning competencies, such as analysis, argumentation, and problem-solving. • Requiring students to go beyond simple recall; eliciting evidence of complex student thinking and application of disciplinary or cross-disciplinary concepts, practices, and/or transferable skills. 			
c. The project provides opportunities for students to demonstrate evidence of important college- and career-readiness skills, including: <ul style="list-style-type: none"> • Connection to career technical education standards. • Application of district graduate profile and pathway student learning outcomes. 			

Note: The rubric for the quality rating is scored as follows: 0 = No Evidence; 1 = Limited Evidence; 2 = Partial Evidence; 3 = Full Evidence.

Adapted from: Los Angeles Unified Linked Learning. (2019). *LAUSD Linked Learning task quality criteria tool for multidisciplinary projects*. Los Angeles, CA: Linked Learning Office. https://docs.google.com/document/d/1jHzo4GFWh0V-6E_aGSh9qa_MBOs7sG1JgVC8jAFSkc/edit (accessed 12/24/19).

Using these quality criteria, Linked Learning pathways develop their own performance tasks aimed at helping students achieve district and pathway student learning outcomes. For example, one pathway has designed an interdisciplinary project lesson plan titled “American Narratives: What Is the Story Behind the Story?” The project encourages students to think critically about topics in American history, literature, and art, and to learn about potential professions they could pursue in those fields. Teachers have included standards that can apply to core disciplines (e.g., U.S. history), career technical education, and social-emotional learning to use as guides. These guiding elements also underscore academic and life skills, such as how to successfully employ close reading strategies, and image analysis and critique with an emphasis on formulating an argument. The

lesson plan identifies district outcomes such as increased efficacy (through open-ended critical thinking demands) and adaptability (by welcoming feedback for revision) as well as pathway student learning outcomes that require students to address a global or local challenge.

Los Angeles Unified's Linked Learning team used observational data to guide the supports it provided to educators. This data indicated that project quality, producing rigorous college-ready writing (instead of informal writing for brochures, posters, and presentation slides), and the inclusion of mathematics were ongoing challenges. The Linked Learning team used this information to support educators' capacity to develop rigorous and aligned performance tasks in argumentation and mathematics during the 2018–19 school year. Beginning in summer 2019, the Linked Learning Office also began a rollout of a professional learning series to calibrate the scoring of the performance assessment quality criteria and use of the criteria to provide feedback to educators who had submitted their projects for review, as well as math educators designing new performance tasks.

Systems of Support

Research suggests that the successful implementation of performance assessments depends on how teachers are trained, supported, and engaged throughout the process and on the structures that are in place to support students.⁴⁹ The Los Angeles Unified Linked Learning Office has responded to this evidence with targeted supports that focus on the needs of teachers, administrators, and students.

District supports are fundamental to portfolio and defense implementation. The Los Angeles Unified Linked Learning team offers professional learning and coaching, provided by its instructional coaches (alternately called pathway coaches), to educators in Linked Learning pathways that are implementing the portfolio and defense. Linked Learning educators also have access to two separate and comprehensive websites, created by the Los Angeles Unified Linked Learning team, to guide staff and students through the portfolio and defense process.⁵⁰ School administrators and students also receive supports tailored to their needs. These district resources are made possible, in part, by support from outside funding and technical assistance.⁵¹

Teacher Supports

The Los Angeles Unified Linked Learning Office supports teachers through professional learning opportunities and coaching. The professional learning sessions aim to deepen teachers' understanding of the portfolio and defense and provide them with the skills and knowledge to support effective implementation. This includes calibration exercises to ensure reliability and consistency in scoring and deliberation processes within each Linked Learning pathway and across the district.

General professional learning opportunities

The district offers professional learning workshops with separate tracks for teams from new Linked Learning pathways and for more established teams, i.e., those with 4 or more years of experience implementing the portfolio and defense. There were five portfolio and defense workshops in the 2018–19 school year. Each session had between 25 and 40 teachers in attendance, organized in teams representing 7 to 12 pathways implementing the portfolio and defense.

In 2018–19, sessions were designed to provide an introduction to performance assessments and to assist each pathway in preparing a scaffolded portfolio and defense plan for the academic year. Sessions also focused on scoring calibration and the provision of student supports. These sessions helped to ensure that educators implemented performance assessments with consistently high expectations across Linked Learning pathways and that structures and instructional practices were in place to help students reach established expectations.

The final session, offered late in the academic year, provided an opportunity for pathway teams to reflect on the portfolio and defense process after implementing the performance assessment.

All Linked Learning pathways that are in their first year of portfolio and defense implementation are strongly encouraged to send a team to these district-led professional learning sessions. The Linked Learning Office also emphasizes the importance of having the lead teacher, assistant principal, and 12th-grade teachers at all sessions. These educators are responsible for developing,

coordinating, and implementing the portfolio and defense at their site. By bringing together a core group of individuals from each new Linked Learning pathway, workshops assist teams in establishing the norms, routines, and protocols that enable them to work collectively.

Targeted professional learning opportunities

The Linked Learning Office also offers additional professional learning workshops that target a particular challenge identified by district coaches based on their direct work with Linked Learning pathways. For example, in response to observations that students' portfolio and defense artifacts did not demonstrate rigorous, college-ready writing or mathematical reasoning, the Los Angeles Unified Linked Learning Office collaborated with Envision Learning Partners to develop a series of workshops to strengthen core competencies around performance tasks. The district implemented these workshops in the 2018–19 school year, and they focused on argumentation and mathematics tasks with the goal of ensuring rigor and relevance across all Linked Learning pathways and industry sectors.

The Linked Learning Office designed a four-part professional learning sequence to take place from October 2018 through May 2019 focused on creating more complex project-based learning tasks to build students' research and argumentation skills. These sessions aimed to help teacher teams develop standards-based project plans aligned with the Next Generation Science Standards and Common Core State Standards. These sessions also provided an opportunity for scoring calibration as teachers worked together to develop a common understanding of “proficiency” within the argumentation area of a student's portfolio and to discuss how best to standardize assessment in this area across the district. To develop meaningful and consistent methods for assessing argumentation-related tasks, the district worked with Envision Learning Partners and ConnectED: The National Center for College and Career to craft content-specific rubrics grounded in existing research.

Following a similar model, the Linked Learning Office implemented a three-part professional learning sequence from September 2018 through January 2019 to create performance tasks for secondary mathematics. The district has found it challenging to integrate mathematics into the portfolio and defense because there is often less variation in the sorts of tasks assigned in mathematics courses, where short problems are typically used to assess students' mastery. Following these professional learning sessions, teachers were encouraged to try out particular tasks in their courses and to provide feedback at a later convening.⁵²

Additional professional learning opportunities

There were also three Defense Design Studios in the 2018–19 school year (see “What Happens at a Defense Design Studio?”). These were trainings hosted by the Linked Learning Office in which community members, educators, partners, and policymakers learned about Los Angeles Unified's portfolio and defense model, heard from school-level personnel who have implemented the model, and observed a student defense presentation. Defense Design Studios are based on a professional learning session format, of the same name, developed by Envision Learning Partners. Attendees included educators from local schools who were interested in learning more about the portfolio and defense, as well as district partners who were looking for opportunities to continue their support of Linked Learning and performance assessments.

What Happens at a Defense Design Studio?

Teachers from across Los Angeles Unified, as well as representatives from the city of Los Angeles, have come together for a day full of learning about Linked Learning's portfolio and defense model. The training is run by the district Linked Learning Office and hosted by a school site that has been implementing the portfolio and defense for many years. It allows participants to see firsthand what high-quality implementation of performance assessments looks like in practice.

The session is introduced by Linked Learning staff, who share the driving question for the day's professional learning: *How can the portfolio and defense measure our students' readiness for college, career, and life?* All of the participants in the session are new to the portfolio and defense model and are there to learn how they might adopt this form of authentic assessment at their own school sites. The Linked Learning staff member leading the session shares an overview of performance assessments, provides a theory of change, and walks participants through an engaging activity that involves examining student work.

After the participants have dipped their toes into the world of the portfolio and defense, they have an opportunity for a discussion with the principal and a teacher leader at the host site about what school-level adoption of this model looks like. Both the principal and the teacher leader are candid in reflecting on the challenges of initially adopting performance assessments. They share that they are still in a state of continuous improvement because of the high expectations they hold for themselves. For example, the teacher leader keeps a running document on her computer with notes on how to improve their portfolio and defense model in the next year. The participants then engage in a back-and-forth dialogue with these school site representatives to better understand the details of what is required to implement performance assessments.

Now that participants have a sense of the theory of change behind the portfolio and defense, the schoolwide structures and initiatives that support this work, and the experiences of educators implementing this model of assessment, they have an opportunity to learn by doing. Near the end of the day, they observe a live student defense presentation and listen to a judging panel deliberate on how to score the presentation. When the participants come back together at the end of the day to reflect on their learning, they share how powerful it was to be introduced to the portfolio and defense model in this way. They also express their excitement at bringing this work back to their own school sites.

The Linked Learning Office also convenes a virtual calibration session to ensure that judges score student defense presentations similarly. The district provides a calibration protocol and an instructional video, with the suggestion that each Linked Learning pathway provide two professional learning sessions annually, focused on scoring calibration for staff. The first session should orient staff to the senior portfolio defense rubric and have them observe and practice scoring a sample student defense presentation. The second session should focus directly on calibrating staff scoring of student defense presentations. Though there are no standard procedures for including external judge panelists, such as industry partners, the Linked Learning Office suggests that they also receive scoring calibration training through in-person trainings, including evening sessions, or via online platforms. District staff recommend that Linked Learning pathways only allow adults who have been trained through calibration sessions to score students' presentations.

Coaching

The Linked Learning Office provides teachers with targeted support through on-site coaching. Instructional coaches work directly with each Linked Learning pathway to provide differentiated support. They spend approximately 1 day per week at each assigned site.

District-provided coaching targets newer Linked Learning pathways that are establishing the portfolio and defense at their sites. Sites with experience with portfolio and defense implementation are welcome to request additional support from an instructional coach, who can provide periodic check-ins and is available to respond to any issues that might arise. Some experienced sites also serve as a resource to the district by supporting other schools new to the portfolio and defense, hosting site visits, and showcasing the portfolio and defense at principal meetings and other district meetings. For example, pathways that have received the distinction of Gold Certification through the Linked Learning Alliance's certification process are named as practitioner centers for the district and receive financial compensation for hosting site visits.

Coaching can include support for teachers with designing projects, creating performance tasks, sustaining collaborative learning environments, developing cross-curricular lessons, backward-mapping integrated curriculum to pathway student learning outcomes, and more.⁵³ Coaches also help guide high-quality implementation of Linked Learning and the portfolio and defense through classroom observations and feedback. Coaches often work most closely with the site's lead teacher (and, in many instances, with a site administrator) to address and establish practices that best support students' learning and success with the portfolio and defense. Coaches play a role in the professional development opportunities provided to pathway teams. District-led professional learning is tailored and modified to best meet the needs of participating sites based on coaches' direct work with, and knowledge of, each pathway.

School Administrator Supports

Principals and assistant principals are encouraged to attend the portfolio and defense professional learning sessions to supplement the support they receive from Linked Learning coaches. Currently, support for principals ranges from in-person check-ins and site visits to regularly scheduled conference calls with the Linked Learning team. Additionally, in 2018 the district initiated a program quality review of pathways and is developing a formal support system for school leaders.

In addition to the direct support provided to each Linked Learning pathway, administrators are encouraged to increase their knowledge of the portfolio and defense by learning directly from teachers. Indeed, administrators rely on teachers' knowledge and expertise to gain a deeper understanding of the supports, structures, and resources necessary to improve implementation and outcomes of the portfolio and defense. Administrators are encouraged to build and support a school culture that enables staff members to work collaboratively and to share their learning and expertise with each other. At some sites, administrators said their involvement in the portfolio and defense (i.e., logistics, judging panels, post-defense reflections) increased their understanding of, and support for, the portfolio and defense system. School administrators must possess the skills and knowledge to build a team that can work in unison to support portfolio and defense implementation, according to one district-level administrator. "The leaders and the administrators have to have an ability to make a cohesive team. Only then will it work, so [administrators] play an important role in creating that environment, in making and developing teams."

Student Supports

In addition to these professional learning supports for teachers and administrators, the district has structures in place to assist students as they go through the portfolio and defense process. The Linked Learning pathways vary in the supports they offer students who are completing the portfolio and defense, but all are designed to provide the opportunity for academic success for all students, including those with prior academic challenges. As one teacher described:

The whole process is really scaffolded for everybody.... I even created a couple modified rubrics for students who did not have IEPs.... We scaffold the whole thing for them, and it's a whole process.... It's like a step-by-step and you guide them through it. It's lots of drafts. It's lots of deadlines.... There are a lot of things in place to support all the students.

In addition, there are efforts across pathways to ensure that all students are prepared for the unique social-emotional demands of the portfolio and defense process.

As mentioned earlier, a number of supports are embedded into students' educational experiences before they reach the final presentation of their portfolio and defense in 12th grade—the senior portfolio defense. For example, the Linked Learning Office recommends that all pathways integrate at least two interdisciplinary, project-based assignments focused on career and technical education each year starting in 9th grade to prepare students to engage in the level of academic rigor expected from the senior portfolio defense. This provides students with the experience of presenting in a forum similar to that of their senior portfolio defense.⁵⁴ Some schools frame these presentations as “mini defenses” in an effort to both provide students with experience presenting their work and increase students' understanding of the processes, standards, and rubrics associated with the senior portfolio defense.

The Linked Learning Office also suggests that beginning in 9th grade, students receive portfolio-building support at least once per year. Students are given guidance (most often through an advisory class) with regard to the selection of exemplary artifacts for their portfolios that demonstrate their college and career readiness. In some Linked Learning pathways, teachers must approve artifacts before students can add them to their portfolio. This ensures that students have assembled a portfolio that adequately represents their growth and preparedness for graduation and next steps after high school.

When students reach 12th grade, there are additional structures to support them through the portfolio and defense. For example, schools might allow students to work on their portfolio or their senior portfolio defense presentation during content classes, such as English language arts, government, and economics, or during advisory.⁵⁵ Advisory is a formal class within each student's schedule as part of the Linked Learning model, designed to provide the

Advisory provides students with critical time and space to work on their portfolio and defense while receiving continual feedback from their advisory teacher.

opportunity for students to build deep relationships with peers and teachers. This class provides students with critical time and space to work on their portfolio and defense while receiving continual feedback from their advisory teacher. To support students with the portfolio and defense

presentation, one pathway offers an after-school “senior defense boot camp.” Students sign up for a 20-minute time slot during which they present their introduction and one artifact to a panel of teachers and are given feedback. The district also provides students with a number of resources, including a comprehensive overview of the portfolio and defense that describes the process from the graduate profile to the final defense, and a portfolio-defense student workbook.⁵⁶

In addition to these broad-based supports to prepare all students to undertake the portfolio and defense, there are more targeted accommodations for students with disabilities and for English learners (ELs), which vary by Linked Learning pathway. For example, some pathways allow ELs to present their defense in English but respond to the question-and-answer section in Spanish. Presenting students may also invite their peers to serve as supportive audience members during the senior portfolio defense. Other pathways may give ELs an opportunity to observe their peers’ defenses, which helps in two ways: (1) ELs get additional time to prepare their defense because they occur later in the calendar year, after other students have gone first; and (2) they learn from the observations of fellow students’ presentations and thus may feel more prepared.⁵⁷ In another example, EL students presented in English and were held to the standards outlined in the general rubric. These students created an EL support group in which they assisted each other through the process.

Students with disabilities might have their Resource Specialist Program teacher determine different criteria for what it means to “pass” the senior portfolio defense based upon their Individualized Education Program (IEP)—for example, they might need to exhibit only basic proficiency in some categories of a particular rubric. As they do for EL students, Linked Learning pathways may give students with disabilities additional time to complete their senior portfolio defenses by scheduling these presentations toward the end of the period to allow for peer observations. In one Linked Learning pathway, a modified rubric was used for students with IEPs, and a paraeducator served as a judge. This allowed other teachers on the judging panel to be fully aware of the student’s growth and score the student accordingly.

To assist pathways in providing the supports and scaffolds that match the needs of their student populations, accommodations and modifications were topics of the district’s five-part portfolio and defense professional learning sessions that were offered during the 2018–19 school year. The district’s instructional coach framed this topic as foundational to implementing the portfolio and defense. Linked Learning pathway teams were encouraged to discuss possible supports for students who were performing far below grade level, ELs, and students with disabilities and to create concrete plans prior to implementation.

Referencing CPAC’s best practices for designing accessible performance assessments, Linked Learning pathway teams discussed how they could provide additional support to students through the portfolio and defense.⁵⁸ Support plans included:

- altering the composition of judging panels to include a resource teacher;
- providing opportunities for students to practice the role of presenter and panelist;
- providing safe spaces for students who need it (e.g., highly anxious students);
- videotaping practice presentations for students to review;
- developing “sentence starters” for ELs;

- providing additional time for students with special needs to prepare for their presentations;
- providing students with the opportunity to watch other students present to serve as models; and
- developing more check-for-understanding strategies to provide targeted supports.

Funding and Technical Assistance

To support high-quality implementation and increase student access to performance assessments, Los Angeles Unified currently relies on several external funding sources, including the Stuart Foundation and the California Career Pathways Trust.⁵⁹ The Stuart Foundation has helped to fund technical assistance support from Envision Learning Partners.⁶⁰ Meanwhile, the California Career Pathways Trust supports work-based learning initiatives and has helped fund in-school instructional coaches within Linked Learning pathways.⁶¹

In addition, Los Angeles Unified received funding from the Assessment for Learning Project (ALP) through a joint grant with Los Angeles Unified School District; Pasadena Unified School District; and the Learning Policy Institute, the nonprofit conducting this case study and supporting districts by providing research-based evidence about performance assessments. This group initially began working together in an unfunded capacity through CPAC. The resources from ALP enabled each district to further develop its performance assessment initiatives. ALP funds also support technical assistance provided by Envision Learning Partners and ConnectED: The National Center for College and Career.

Conditions That Support a High-Quality Performance Assessment Initiative

Through our research in Los Angeles Unified, we identified a number of key conditions that support the implementation of performance assessment practices that contribute to continuous improvement and high quality. These conditions help build educators' and students' capacities to complete the portfolio and defense and are present at a variety of levels throughout the system, including at the classroom, school, and district levels.

Effective Linked Learning Onboarding Process

Members of the Los Angeles Unified Linked Learning Office have found that the implementation of Linked Learning and its related portfolio and defense process require a shared vision and commitment from school-level administrators and teachers. The district has therefore established an opt-in system for schools and small learning communities (SLCs), wherein they apply to establish a Linked Learning pathway and are subsequently approved by the Linked Learning Office. This opt-in system created an onboarding process for pathways in which the application helps define their unique pathway content and establishes coherence across the district in terms of portfolio and defense expectations.

Shared vision and commitment for portfolio and defense implementation

Los Angeles Unified's onboarding process ensures that staff in Linked Learning pathways are committed to all of the core components of the Linked Learning approach, including implementation of a portfolio and defense. To demonstrate their interest in and readiness to implement Linked Learning, teachers and administrators in schools or SLCs within schools first apply, and then host a half-day visit from the district's Linked Learning team and engage in structured conversations with the Linked Learning Office team. All applicant sites must also demonstrate teacher support for and commitment to developing a Linked Learning pathway that best meets the needs of the school or SLC and its students. This is accomplished through the following process:

- School or SLC representatives attend a Linked Learning information session.
- School or SLC holds a mandatory faculty meeting to discuss Linked Learning implementation.
- Three fourths of the school or SLC team must attend all onboarding orientation sessions.

The Linked Learning Office has also developed criteria to determine school or SLC readiness. As part of the application process, each potential site must complete a school matrix for the current and upcoming academic year that shows plans for all students to enter cohorts and enroll in advisory classes, as well as common planning time for teachers. Members of the applying pathway must also submit a professional learning schedule for the current year that demonstrates a focus on Linked Learning implementation. Using a readiness rubric, the district team assesses the applying pathway's commitment to Linked Learning, readiness for implementation, and level of understanding regarding the collective learning and shared investment the process will require.

According to a representative of the district's Linked Learning Office:

You have to really believe in the work.... Then I think you need to ... find those people who are willing to go for it, and you work with that. You don't make everybody do it. [If] you mandate it, you kill it.

The rigor of the Linked Learning onboarding process, according to district administrators, aims to identify future pathways that have the capacity to implement all aspects of the approach, including the portfolio and defense.

Linked Learning onboarding and the portfolio and defense

Once Linked Learning pathways are initially approved to implement the approach, the Linked Learning Office leads them through a robust onboarding process. The district's onboarding process plays an important role in ensuring that each pathway continues to meet the goals and expectations established by the district, while also accommodating each pathway's specific theme (e.g., Business and Finance, Health Science and Medical Technology), objectives, and needs. The process provides the district with critical information about the capacity of each potential Linked Learning pathway to implement all components of the approach according to expectations. By gauging readiness and commitment to implementing the approach, the Linked Learning Office is also able to match its resources to the level of support each potential pathway requires.

Based on the knowledge gathered through the onboarding process, the district targets supports that can help each Linked Learning pathway identify and establish strategies that are aligned to its particular context and that will help it to meet the broader instruction, practice, and learning goals of the district. For example, onboarded pathways receive assistance in designing performance tasks that align with the Common Core State Standards and the Next Generation Science Standards, which all Los Angeles Unified students are required to meet.⁶² The onboarding process assists in ensuring that new pathways have a coherent vision and receive concrete supports that can lead to strong student outcomes.

Latitude for Instructional Leadership at the Pathway Level

The Linked Learning Office emphasizes school site autonomy in its approach to portfolio and defense implementation. Administrators see this autonomy as an important aspect of implementation that can support differentiated instruction for the portfolio and defense in each pathway. Professional learning sessions create a foundational understanding of expectations for rigor and provide opportunities for site-level staff to determine the implementation supports they need. Linked Learning pathways operate within different school structures, which can impact the level of autonomy that educators experience when implementing the portfolio and defense.

Flexibility and autonomy for Linked Learning administrators and lead teachers

The Linked Learning Office does not mandate any site-level supports, instead encouraging participating pathways to attend its professional learning sessions. Rather than establishing a standardized method for implementing the portfolio and defense, the professional learning sessions elevate best practices and provide educators the space to learn from other Linked Learning pathways at a similar level of implementation. Either through these sessions or through teachers' requests,

administrators can pinpoint which structures will best support portfolio and defense implementation in their Linked Learning pathway. Administrators have identified several helpful supports, including providing common planning time for teachers on the master schedule, using pathway-level professional development for calibration and post-presentation reflections, and emphasizing vertical alignment in the curriculum to build the skills students will need for the portfolio and defense.

The Linked Learning Office expects each pathway, in time, to move beyond the district-provided professional learning support by determining its own requirements and structures for the portfolio and defense. The most experienced Linked Learning pathway in our study established its own professional learning opportunities and pathway-level structures to support the portfolio and defense (e.g., additional teacher preparation time focused on portfolio and defense planning, and a part-time senior defense coordinator). Educators in this Linked Learning pathway shared that they felt that their individual pathway needs had evolved beyond the current supports provided by the district.

The Linked Learning Office expects each pathway, in time, to move beyond the district-provided professional learning support by determining its own requirements and structures for the portfolio and defense.

Linked Learning pathways that were less experienced with implementing the portfolio and defense said that they were in the process of determining the structures and supports that educators needed to implement this culminating performance assessment effectively. The Linked Learning Office sees this process of self-determination as part of portfolio and defense implementation.

Organizational structures and the autonomy of site-level administrators and lead teachers

Linked Learning pathways' organizational structures played a part in the supports present for teachers implementing the portfolio and defense at each of the sites. Two of the pathways studied were Pilot Schools, which are part of a districtwide program that provides schools with increased autonomy over five key areas: staffing, scheduling, budget, governance, and curriculum and assessment.⁶³ This autonomy enabled these sites to outline the expectations for the portfolio and defense in their Elect to Work Agreement, which establishes work conditions and is approved annually by the staff.⁶⁴ In some instances, the Pilot School structure enabled schools to compensate teachers for out-of-class time spent implementing the portfolio and defense, including delivering extra instructional support to students and organizing the logistics of the senior portfolio defense.

Sites used their increased autonomy to revisit how the portfolio and defense aligns with the overall mission of the Linked Learning pathway and to reestablish the expectations, roles, and responsibilities of teachers associated with portfolio and defense implementation. This increased autonomy also facilitated the hiring of teachers interested in implementing a portfolio and defense model. As one site administrator shared, the autonomies afforded to Pilot Schools enable the pathway to “set the tone” and ensure everyone is on board:

[As part of our Pilot School status], teachers are required to serve on panels.... There's some specific language in [the Elect-to-Work Agreement]. But ... we do not use that document as black and white. It's really more about the spirit of what's in there.... The [Elect-to-Work Agreement] sets the tone for what we do.

Like traditional schools, Pilot Schools are required to participate in all state-mandated tests and assessments, including standardized tests. However, Pilot Schools are also encouraged to adopt assessment systems of their own, including portfolios and performance assessments that align with their curriculum.

Linked Learning pathways structured as SLCs within traditional comprehensive high schools strive to assert this same level of flexibility. In our study, staff members of the Linked Learning pathway that was structured as an SLC, rather than a Pilot School, indicated that they often had to work around the master schedule and priorities of the larger school to support portfolio and defense implementation. This included working with school-level administrators who prioritized more traditional accountability measures, based on messaging that they received about the importance of these assessments from the district. Teachers often had to advocate to administrators, reminding them of the need to carve out time, support, and resources for the portfolio and defense. As one administrator shared, maintaining a focus on the portfolio and defense that is aligned from 9th to 12th grade was often a challenge:

We create a [professional development] calendar based on the [available] information, the Smarter Balanced [Summative Assessments] results, ... our Single Plan for Student Achievement, ... our commitments, and our district initiatives.... We do so much.... We're pulling horizontally in so many directions, and we're trying to cover so much.

Linked Learning pathways organized as SLCs have employed strategies such as inviting school-level administrators to observe and/or participate on judging panels of final senior portfolio defenses to increase administrators' understanding and support of the practice.

Whether Los Angeles Unified schools are SLCs or Pilot Schools, they are often challenged to align state-, district-, and school-level priorities. To implement pathways successfully, these schools must also integrate the portfolio and defense among these other priorities. For pathways that are organized as Pilot Schools, the built-in autonomy enabled administrators to more easily implement structures that facilitate a high-quality portfolio and defense. The district is considering the establishment of a broader category of "Autonomous Schools" that will include Pilot Schools and other autonomous school models operating within the district.

Treatment of Teachers as Professionals, Experts, and Leaders

Professional learning opportunities coordinated by the Linked Learning Office play a key role in providing Linked Learning pathway teachers and leaders with the knowledge and tools to begin and/or improve implementation efforts of the portfolio and defense model at their site. The Linked Learning Office acknowledges and respects teachers' time (they commit two full instructional days and three Saturdays to attend sessions) by executing a professional learning series that is engaging and relevant and that meets the needs of each participating pathway.

Professional learning opportunities coordinated by the Linked Learning Office play a key role in providing Linked Learning pathway teachers and leaders with the knowledge and tools to begin and/or improve implementation efforts of the portfolio and defense model at their site.

Teachers receive compensation and are provided a meal, and there is always built-in collaborative planning time for teams to synthesize their learning at the end of each session. The series is led by the district's Linked Learning technical coach, a former teacher who has experience implementing the Linked Learning approach and the portfolio and defense.

Targeted professional learning and collaboration

Each district-led professional learning session is meant to provide a space to tackle any and all issues related to the portfolio and defense. Sessions are interactive and provide teachers with a chance to work with their Linked Learning pathway teams, to learn with and from teachers from other pathways, and to grapple with a range of issues that support implementation of rigorous portfolio and defense practices. While district leaders provide a set of tools and resources that guide educators through all aspects of the portfolio and defense implementation process—from preparation and logistics to portfolio resubmission tools and templates—teachers are encouraged to tap into the expertise and experiences of their colleagues.

End-of-year feedback provided by participants of district-led professional sessions in 2018–19 confirmed participants' appreciation for the time to review and discuss all aspects of implementation with colleagues from across the district. One participant, for example, indicated:

The collaboration among schools [at professional learning sessions] was the most helpful, and seeing how other first-year schools are implementing the programs gave me some ideas on how to better implement improvements to next year's program.

Professional learning sessions emphasize the importance of creating an infrastructure that enables teachers to collaborate on the portfolio and defense at their respective sites. These sessions contribute to building a community of practice within each pathway, through which teachers and leaders can establish norms and protocols for shared learning and understanding. The district plays a key role in assisting each pathway in establishing these spaces and practices. According to one educator, these spaces enable teachers to learn how to collaboratively design projects and assessments, and then to reflect on these practices to continuously improve student outcomes:

Teachers design curriculum, create integrated projects, [and] come back and evaluate student work together [to] improve upon the process.... [The district is] constantly allowing teachers to reflect on their practices [and] their teaching strategies, allowing them to learn new strategies, [and] allowing them to go to workshops to improve their pedagogy skills [and] improve their knowledge.

Teachers said that these sessions help build camaraderie and contribute to a school culture in which teachers learn from each other and work together to implement and improve the portfolio and defense. One teacher shared:

We've just been building. I've had such an amazing team of colleagues who have worked on really revising this process and everything that goes into it together. We, together, have worked on it and collaborated so well. It's just a really great group of educators.

District-led professional learning sessions provide teachers with the space and tools to collaborate with teachers across the district, which in turn helps them establish norms and practices that facilitate collaboration at the school level.

Maintaining a shared focus on rigor

A central focus of district-led professional learning opportunities is assisting Linked Learning pathway teams in developing shared expectations of rigor. One teacher shared:

[Linked Learning professional learning] had us calibrate and calibrate and calibrate, so we begin to learn, to get better, [and] to become more comfortable with each other. [We] really, truly learn the rubric. I think that's very important, because a lot of times you skim through it, but they have us dig deep into that rubric and really defend why it is we're scoring students the way we are. And that's important.

At each professional learning session, scoring calibration exercises involved a review of students' work. Teams used examples of a performance assessment or an interdisciplinary project, which included either a video of a portfolio defense or a live presentation by a student, during which teachers could participate through question and answer. After viewing the projects, teachers had the opportunity to work collaboratively to evaluate students' work, using protocols and rubrics provided by the district (see Appendices B, C, D, and E for examples). This process developed teachers' skills and deepened their relationships, which enabled them to develop shared expectations for what students know and can do. The district's approach to professional learning provides teachers with the skills and tools to work together to develop greater agreement and reliability in scoring student work. It also expands teachers' understanding of the expectations of a rigorous portfolio and defense, grounded in Linked Learning pathway-defined student learning outcomes that staff have collectively defined. Further, it ensures that the portfolio and defense is implemented with consistently high and shared expectations across and within each Linked Learning pathway.

Elevating teacher expertise, knowledge, and leadership

The district's professional learning series brings teachers together to work through implementation issues. It does so by elevating teachers' own expertise and knowledge of their particular Linked Learning pathway and the students and families they serve. These sessions recognize that teachers are best positioned to identify and establish practices that will work for their Linked Learning pathway.

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Teachers indicated how empowering it is to attend sessions in which their wealth of knowledge and expertise is acknowledged even as they are learning new skills and processes. Teachers also described having a voice and being able to explore and share ideas. One teacher explained:

[Linked Learning's] PDs have been the most powerful ... [and] some of the most professional PDs I have ever been to.... It wasn't like "oh, you're just a teacher."

It was very professional, and it felt very real. A lot of times I think educators are kind of seen just like a tool, but ... the way that Linked Learning does their PDs, everybody's a professional, and I've always appreciated that.

Similarly, a staff person from the Linked Learning Office shared that she is continuously turning to the expertise of school sites to deepen the work and to improve their systems of support. As one district-level administrator explained, she relies on teachers who are implementing the portfolio and defense to improve the system:

We had [three certified pathways] come together.... And we looked at [teachers'] performance assessments, and we looked at the student work that resulted from that. And we used quality criteria that we created and rubrics that we created in discussing it. It was such a rich discussion. Two days of listening to these great teachers converse about this and contribute to that. They gave some good feedback. And so now we're revamping [those rubrics].

Teachers in more experienced Linked Learning pathways acknowledged that they serve as a resource for the district and as a source of support for other, newer pathways:

Since we've implemented the senior portfolio and defense for 4 years, we pretty much act as a resource or as a support for other schools that would like to see how we do our senior portfolio and defense, as well as schools that might want to review their own and compare how they do theirs as opposed to how we do ours.

As Linked Learning pathways further develop and refine their portfolio and defense practices, they recognize their own expertise in, and knowledge and leadership of, this work.

Opportunities for Students to Build Relationships

Smaller learning environments, used in portfolio and defense implementation and as part of the Linked Learning model, foster relationship building between students and adults and facilitate student collaboration. Further, the portfolio and defense requires students to reflect on their learning experience and their identities as learners, which means that students must be comfortable expressing vulnerability and identifying areas in which they can continue to grow. Linked Learning educators recognize that this vulnerability and reflection require a relationship-based approach, and they have created structures in pathways that prioritize smaller learning environments and foster positive relationships. Students experience smaller learning environments as part of a Linked Learning pathway within a school or during an advisory class within that pathway, and often feel known and supported by their peers and teachers in these smaller learning environments.

Smaller learning environments can also help educators provide collaborative, authentic learning opportunities for students that students can then reflect on and include in their portfolio and defense. Working in small groups to complete collaborative, cross-disciplinary projects fosters relationships between students and can support the development of key communication skills as they are encouraged to share their ideas and problem-solving approaches with their peers.

The role of advisories in portfolio and defense implementation

An advisory is a scheduled class in which students and teachers attend to nonacademic content, including building relationships and social-emotional skills. Advisories provide an opportunity for teachers to get to know students outside of the traditional academic curriculum and instructional routine. The relationships that teachers and students build during advisory time can increase communication between them. Further, the presence of an advisor means that students have an adult to whom they can turn when they need extra support. Advisory time provides students with an opportunity to build their reflective and communication skills, which they can then employ as they prepare for their culminating senior portfolio defense.

During students' senior year, advisories also serve as a space for direct support of the portfolio and defense. Educators and students use advisory time to compile their portfolios, practice presenting, and write reflections on their work. At one school, the portfolio and defense work is shared among many classes, and advisory collects all the strands of that work. As one principal explained:

[Students] do some of the work in their senior English class, [especially] writing some of the reflections and revising.... But advisory is the place where we help kids organize those things. For organizational purposes, it's the easiest place to access a subset of kids. And it's a flexible time, so you're not digging into content area time.... [In advisory, students] can look at their specific artifacts and ... [teachers] give them some feedback or direct instruction around expectations that we have around a particular element [of the portfolio and defense].

Students shared that the relationships that grew out of advisory and the dedication of advisors to the portfolio and defense process served as a motivation to excel. One student explained:

I didn't feel the stress of doing the presentation. I just didn't want to let [my advisor] down, because I knew how much she dedicated her time to me.... We did it together, and ... the way [my advisor] handled it was very personal.... She just seemed very kind.

Advisories provide opportunities to build relationships and serve as a space that can hold together the many elements of the portfolio and defense.

Small learning environments

The small learning environments within Linked Learning pathways support students in building strong relationships and sharing their personal stories with their panels during the portfolio and defense. Students commented that they felt comfortable not only reaching out to current and past advisors but also to any other teachers with whom they had developed a relationship when they needed support on the portfolio and defense. Students shared that the small size of the Linked Learning pathway enabled them to feel comfortable approaching teachers as needs arose. One student shared:

You could go to anybody.... You'll be assigned an advisor who's going to oversee your [portfolio], but you could go to any teacher you want and ask them to check how it is and they're very willing to help.

Students also found that the small learning environment heightened their sense that they were going through a shared process of the portfolio and defense. This helped strengthen relationships among peers in addition to strengthening relationships between students and educators. Students shared that feelings of camaraderie with their friends, as well as with classmates they did not know as well, increased during the senior portfolio defense:

I think it was more [that] we all understand each other. We're all doing this. We're all stressing about it. [You can] use your friends as guides if you don't feel comfortable going to your teachers because, a lot of the time, your friends are more understanding of where you are in your [portfolio and defense].... [When] I got super nervous ... [friends] were helping me settle down [and providing] moral support.

The small learning environments present in Linked Learning pathways provided a foundation for students to build relationships with their teachers and their peers. Further, the reflections and the sharing of personal stories that formed part of the portfolio and defense created the opportunity to strengthen these relationships.

Meaningful Learning for Students and Teachers

There is ample research that highlights the potential impacts of performance assessment on student and teacher outcomes.⁶⁵ This study builds on the research that suggests the success of performance assessment systems depends on teachers' training, support, and engagement throughout the performance assessment process and on structures supporting students throughout that process.⁶⁶

Based on interviews and focus groups with 12th-grade students, and with educators participating in the portfolio and defense work, we learned how the portfolio and defense can influence students' learning experiences and outcomes as well as teachers' instructional practice.

Broadening Student Outcomes

Students and teachers discussed the ways they believe the portfolio and defense affects student learning outcomes. They indicated that the portfolio and defense provided students with an opportunity to reflect on their learning and growth, engage in social and emotional learning, prepare for college and career, and build communication skills.

Opportunity to reflect on learning and growth

Students and educators both described how the portfolio and defense afforded students an opportunity to reflect on and recognize their growth during their time in school. Students were presented with a range of opportunities to share their reflections through the portfolio and defense process.

In some Linked Learning pathways, students were asked to present two artifacts, side by side, to demonstrate their growth and to ground their reflections in very specific evidence. For example, a student compared an essay written in 10th grade to one written in 12th grade and spoke to the development of research skills, use of citations, use of more advanced language, and ability to turn an incomplete assignment into an A grade. In other Linked Learning pathways, students were asked to provide evidence of growth by sharing the learning that took place in the production of a particular artifact from their portfolio. In these defenses, students spoke directly about a set of skills, knowledge, and expected pathway student learning outcomes.

Students shared that the chance to reflect on their 4 years of high school learning was meaningful and provided a more accurate representation of their learning than a standardized test. As one student described:

We get to reflect on ourselves, and the teachers get to reflect on their job. The senior defense communicates academic growth.... We're getting to tell [teachers] what we know.... We're not randomly guessing on a test. They understand what we're taking with us when we depart [high school].

Additionally, students used the portfolio and defense as an opportunity to reflect on the range of their learning. According to one student, the portfolio and defense provided an opportunity to break the routine of doing assignments "because I had to" and to instead reflect upon the knowledge and skills acquired over time:

[In the past] I always did assignments just to do them because I had to. It was working on [my portfolio and defense] essay where I was really able to reflect on

what I did and how I was able to be a critical thinker [and] a willing collaborator; [before, for example,] it was just something that I never put thought into.... Having to reflect on [my work] was very memorable in itself because I was allowing myself the chance and the time to really look deeper into my assignments and what I did.

Educators indicated how meaningful it was to not only observe students' growth from 9th to 12th grade, but to observe students' recognition of this growth and their ability to draw connections from one class to another and from one grade to the next. One teacher shared that the portfolio and defense enables students to "finally realize and see exactly what they have accomplished." She added, "It's a huge confidence [builder] for them."

Another educator shared:

I like to see the student reflections. I like to see [them ask], "What did I learn from this? What did I learn about myself as a learner?" ... The ability to talk about themselves as a learner, or talk about themselves as a collaborator, or talk about what they learned in the project or how they might do it differently—[I think] those kinds of reflections ... are really powerful, and not just the simple, "Yeah, it was good, I did a good job on that," but really meaningful deep kinds of reflections that they're doing about themselves.

As part of the portfolio and defense, students' reflections can be a powerful tool for them to see both their own growth and the tangible skill sets they are taking with them as they graduate.

Growth in social and emotional learning

Students felt that the portfolio and defense provided them with the opportunity to develop critical skills and mindsets that enhanced their ability to persevere when faced with tough challenges. In particular, the portfolio and defense provided students with a sense of ownership over their learning and their futures. According to one student, the opportunity to reflect upon all of his mistakes and to learn from those experiences has provided a lifelong lesson:

The biggest takeaway from this is definitely just reflecting on myself and finding all the mistakes ... or things that I [am not] necessarily satisfied about with myself. I feel that [takeaway] ... is going to stick around because, as people, we can always improve on what we do. [For example,] being able to take a moment, look back, and see, "Maybe I could have said [or done] this better."

We observed that the question-and-answer portion of the senior portfolio defense often served as an opportunity for students to share their social and emotional learning and for teachers to probe for students' learning in this realm. Questions were tailored to identify the critical skills and mindsets students had developed to overcome the challenges they shared during their defense and whether they felt prepared to overcome potential new challenges.

For example, one panelist asked a student what strategies she would use to deal with her ongoing struggles handling stress in light of the new academic pressures she might experience in college. The student responded that conversations with her family have comforted her in the past and that the opportunity to talk things through is a good strategy for her.

Another student described how he had struggled with a particular subject and was proud that he continued to persist although he had come close to giving up. When asked what he learned through the process, he shared, “Well, I learned that I shouldn’t really doubt myself as much as I do—that I should always try to have a positive outlook—because, [in] everything I do, I always think of the negative, not the positive.”

Many educators said that they had heard from graduating students that the portfolio and defense was “the most useful thing they did” because it provided them with the tools to navigate their futures. Educators shared that even those students who complained about or struggled with the process looked back positively on the experience. One teacher described how the portfolio and defense empowered students: “It just gives them the confidence to do a lot of things, because they feel like if they accomplished this, this thing that seems so daunting ... they can go on and do anything.”

Many educators said that they had heard from graduating students that the portfolio and defense was “the most useful thing they did” because it provided them with the tools to navigate their futures.

Indeed, a student shared these sentiments with us:

I feel the most memorable moment that I had was right after when my teacher told me that I had passed, and I was crying. I felt like I had hope in myself, like I had hope that I could be anything I want as long as I believe in myself and I push myself forward. But you don’t really need anybody else to tell you what you can be or you can’t be, because you could go as far as you want to push yourself.

By participating in the portfolio and defense, students had an opportunity to reflect on and share how they have grown in their self-awareness and their ability to make more informed decisions, and to demonstrate their pride in all that they have accomplished throughout their educational experience thus far.

Rigorous and relevant college and career preparation

The portfolio and defense allowed students to draw connections among their academic learning, their social and emotional learning, and their postsecondary plans. In defense presentations, students were expected to identify how they would use particular skills and learning outcomes in college and/or career. They discussed how particular technical skills (e.g., Adobe certification, set design, graphic design) and learning outcomes (e.g., research, critical thinking, problem-solving, effective communication, collaboration) would assist them in pursuing their college and career goals. Describing his work on his interdisciplinary project during the 4 years in his pathway, one student said, “We practice being critical thinkers, we analyze data, and we conduct our own research.” He connected these activities with the work he would do in his future job, which gave him confidence in his career choice. He said, “OK, I see myself doing it now.”

In one pathway, students were asked to include at least one artifact during their defense that featured a project or piece that was completed in their chosen performing arts concentration. Using this artifact, students demonstrated how they had creatively used a set of technical and/or performance skills to accomplish a particular goal or vision. As one teacher shared:

We have these kids taking acting classes [who are] not going to be actors, ... but this [portfolio and defense experience] helps them understand what they have learned and how to put it all together so they know that [what they have learned] is ... a life skill. They have a clear performance, a goal, which ... works for a lot of them.

While students were expected to make connections between their high school learning and postsecondary plans, we observed that the question-and-answer portion of the senior portfolio defense often served as an opportunity for students to elucidate these connections. For example, a student was asked how she planned to apply her learning to her future study of biology. She responded that she would be required to conduct a lot of research in college and could apply the research skills she learned in high school to this future study. Panels also questioned students about the social learning that they engaged with as part of the portfolio and defense, particularly as part of their reflection. One student was asked how she would deal with the many other ideologies she will come across in college. She shared, “I know I can’t change anybody, but I can use my focal point and evidence in sharing my point of view.”

Educators shared that the portfolio and defense reassured them that students were leaving high school with a postsecondary plan and the knowledge and skills to apply their learning in their college and career pursuits. Students understand, according to one teacher, “It doesn’t just end here.... This isn’t the last time you’re going to [use these skills].”

Improved communication skills

Students and teachers felt that the portfolio and defense improved students’ preparation to present their work. This experience built students’ abilities to communicate clearly, confidently, and in an organized manner. Students also discussed how the portfolio and defense helped them understand the importance of being able to share and support their claims and ideas. Students often said that they were shy or reserved when they entered their Linked Learning pathway and that their participation in interdisciplinary team projects that formed part of their portfolio, beginning in 9th grade, helped them realize the importance of communication skills. Students discussed the need to effectively communicate with classmates in order to fulfill the requirements of these projects. They also recognized that they were encouraged to communicate their needs, questions, and lack of understanding to adults in order to meet expectations. Further, students explained that they were expected to continually present their projects through “mini defenses” to classmates, teachers, industry professionals, and other community members. These requirements emphasized the importance of communication skills and provided opportunities for students to practice and grow these skills. One student shared:

All of [the academics] we’ve done throughout the years, that’s kind of what we’re emphasizing in this presentation, right? But I feel like communication is what grew the most.... I feel like the communication was pretty much key in order to have a good base for your portfolio.

Educators discussed supporting students' acquisition of communication skills through a range of opportunities, including the presentation of projects to members of the community and industry professionals, beginning in 9th grade. Across sites, students were expected to present their work to classmates. One educator shared that these opportunities to communicate ideas and knowledge to peers and adults translate into lifelong skills:

By the time they're 12th-graders, those kids are so articulate. They'll have a conversation with you in the hallway. They will talk with you. They will answer questions.... I think the kids are so much more willing to converse, so much more articulate, so much more willing to engage in those kinds of conversations, and it just feels so much more comfortable.

Students practiced their communication skills frequently in preparation for the portfolio and defense. This practice supported them in improving the quality of their communication in many instances, as well as their comfort level in communicating with a variety of individuals.

Supporting Instructional Practice and Improvement

Educators involved with implementing or supporting the portfolio and defense reflected on how the experience has influenced their teaching practice. During interviews and focus groups, they shared how the portfolio and defense supported them in improving instructional practice and aligning curriculum across grade levels, and how it supported deeper teacher–teacher and teacher–student relationships.

Encouraging continuous improvement

The portfolio and defense provided public, actionable feedback that helped teachers continuously improve their teaching practice. The artifacts that students chose and presented in their defenses highlighted which assignments were most valuable and made students' depth of knowledge about these assignments more transparent. Teachers used these real-time data to inform future curricular and instructional improvements. One site administrator explained:

I think the senior defense is one of the coolest things we do because it is student work and analysis in real time. It's that the teachers really feel like a mirror is being held up to their own task, like, "If the kid can't explain it, is it because I didn't explain it well?"

In one Linked Learning pathway studied, teachers realized that few seniors had selected math artifacts to present. This inspired the math teachers to convene and revise the curriculum to be more relevant to students' needs. At another Linked Learning pathway, the assistant principal shared his observations about similar conversations around the rigor of students' presentations:

I had a conversation with a teacher [after the senior portfolio defense], ... and he [said], "We could have done things a little bit different. Some of the kids were prepared and some weren't.... We could have done a better job doing this and that." [That] whole reflective process is key to improving practice, and it was really nice to hear him not [blaming the students], ... saying, "We need to do this differently. We need to roll it out differently, and we need to prepare them differently."

At another site, the lead teacher reflected on the growth and improvement the Linked Learning pathway has experienced as a result of the portfolio and defense and anticipated further growth as teachers continued to reflect on their practice:

Number one, I think that one of the best things about the senior defense is it really puts your assignments on display as a teacher. I remember our first couple of years, there were a couple of assignments [chosen as artifacts], and [we] were like, that was not the student's fault—that was the fault of the assignment. I think that the next level for us is really looking at our own assignments ... and our own teaching. That's why I think the process is helping to make us better teachers as well.

Students are not the only ones who reflect on their learning as part of the portfolio and defense; teachers use the portfolio and defense to reflect on their practice and identify how to continuously improve instruction to be more relevant and rigorous for students.

Greater alignment of curriculum, instruction, and assessment

Linked Learning pathway teachers who engage with the portfolio and defense are able to contemplate how student learning aligns with a broader vision of college and career readiness. Educators shared that the portfolio and defense supported them in developing vertically aligned interdisciplinary curricular unit maps, projects, lessons, and instructional strategies that began in the lower grades and built toward the portfolio and defense in students' senior year. As one teacher framed it:

I think all schools ... within Linked Learning [are] starting to [plan backward].... I think it's in doing the portfolio and defense that you really get a sense of what needs to be changed or modified to really help all the students understand everything.... [Students are] having trouble with the context of their lessons and how all of the things fit together. So now, we went through the first round of defenses, and we [realized] ... we need to go back and make sure it's clearer.

As such, the portfolio and defense serves as a practice that is both cumulative and reflective. When educators experience the portfolio and defense as the culminating event of students' high school learning, they can draw connections throughout their instructional practice that lead toward the final portfolio and defense. This supports teachers in backward planning in ways that help ensure students meet expected learning outcomes. Similarly, when educators experience the portfolio and defense as reflective, they also engage in discussion and collaboration that supports them in aligning curriculum and instruction.

Scoring calibration exercises, for both summative and formative uses of the portfolio and defense, contribute to establishing shared expectations for student work and underscore the need for teachers to come together to establish norms and align instructional practices. Additionally, the portfolio and defense encourages teachers to develop shared understandings of what they expect students to present for a high-quality, rigorous portfolio and defense.

Ensuring that students see the portfolio and defense as a project that connects and elucidates 4 years of learning, rather than a one-off assignment or a series of discrete projects, requires that teachers know what their colleagues are asking of, and saying to, students. This is especially true in the early stages of portfolio and defense implementation. One educator noted that teachers need to use similar language across grade levels and subjects:

We need to [explain the assignment] the same way and have the same handouts.... We've really had to work on that portion of it just to make sure that we're trying to use the same terminology and reiterate [that] this connects to the [other] projects that you're working on.

As a cumulative practice, teachers work to establish both vertical alignment—from 9th through 12th grade—and horizontal alignment across each grade level within a Linked Learning pathway. Implementation of the portfolio and defense requires teachers to collaborate, thereby increasing alignment between curriculum, instruction, and assessment.

Deeper teacher-teacher relationships

Teachers reflected that a shared commitment to the portfolio and defense, common planning time, and effective collaboration deepened their relationships with peers, increased collegiality, and contributed to a positive school climate. Teachers also emphasized that implementing the Linked Learning approach and planning interdisciplinary projects provided opportunities to build positive relationships with colleagues. They reflected that common planning time grounded in a shared purpose—such as delivering coherent instruction that results in students completing a rigorous portfolio and defense—increased their collegiality as a teaching team. One teacher, who was in his first year in one of the Linked Learning pathways studied, synthesized the process:

Teachers reflected that a shared commitment to the portfolio and defense, common planning time, and effective collaboration deepened their relationships with peers, increased collegiality, and contributed to a positive school climate.

There's [value in the] physical [planning] time ... because we do have structured/unstructured PD [professional development] time where [we] meet in these groups, and it's kind of up to us.... That time is productive because of the culture at the school. So, I think that once we get into that little advisory group, there is this culture of everyone trying to help everyone else.

Educators also shared that professional learning opportunities for teacher teams offered at both the site level and the district level contributed to a positive school climate. For example, one teacher explained that scoring-calibration exercises allow teachers to learn and grow together, saying, “This is the first year that when we score, we are all on the same page.... We're really starting to understand what our [shared] expectations are.” In defending the reasoning behind their scoring of the portfolio and defense, teachers are required to share their thought process with their peers, which can result in increased vulnerability. This can build relationships between members of different teaching teams and between more established and newer teachers.

Deeper teacher–student relationships

Teachers shared that the portfolio and defense—the process, the provision of supports, and the senior portfolio defense itself—enabled teachers to get to know their students more deeply. During the portfolio and defense, students have the opportunity to share their many interests, their strengths, and the areas in which they hope to grow, which can contribute to teachers having a more multifaceted understanding of students’ stories. One teacher shared:

[The portfolio and defense] gives teachers the opportunity to really get to know students and to learn about students’ strengths and weaknesses and their own identities in a different way. And it offers an opportunity for teachers to really focus on a lot of those soft skills and a lot of the social-emotional learning skills that teachers don’t oftentimes feel they have the time to do in their regular content classes. And I can definitely see that teachers have some ownership and feel pride in the students who are presenting, [whom] they’ve helped [prepare]. There’s a connection and community development that happens that you don’t often get in other school sites.

Students found that the reflective element of the portfolio and defense, in particular, facilitated the opportunity to share more of their personal stories with their panel and deepened relationships. One student noted that the opportunity to share her personal statement with educators shifted her relationship with her teachers from being solely focused on academics to a more holistic view:

I get along with every teacher here.... And being able to be comfortable enough to tell them my personal statement and why I was able to go to college was meaningful because they’re there to support you and ... they don’t see you just as a student. They see you as a person that’s going to be successful, and they finally get to be personal [and] to understand the struggles you’ve been through.

Teachers experienced a richer understanding of students’ personalities, challenges, and strengths through their participation in the portfolio and defense.

Lessons Learned

This case study of the portfolio and defense in Los Angeles Unified found that several key conditions strengthen implementation: an effective Linked Learning onboarding process; latitude for instructional leadership at the pathway level; treatment of teachers as professionals, experts, and leaders; and opportunities for students to build relationships. Evidence from the case study also indicated that these conditions were associated with positive results for students and teachers. In particular, reflection on their growth supported students in developing their social-emotional skills, preparing for college and career, and improving their communication skills. By participating in the portfolio and defense, teachers adopted a lens of continuous improvement, aligned instruction across grade levels and Linked Learning pathways, and developed deeper relationships with their teaching peers and with their students.

Through our research, we identified additional lessons that can be learned from Los Angeles Unified's portfolio and defense implementation. These lessons can be applied to other districts that are considering building capacity for performance assessments through an opt-in system wherein teachers and schools have a clear understanding of and demonstrate a strong commitment to the approach and are provided the flexibility to make the work their own. District leaders and other local policymakers could consider the following:

- 1. Districts can establish an opt-in system for performance assessments, as well as strong onboarding, to help cultivate school-level ownership.** In Los Angeles Unified, the opt-in Linked Learning onboarding process encourages schools to implement the portfolio and defense after they have established their Linked Learning pathway. Once ready to implement the portfolio and defense, educators are required to attend professional learning opportunities and trainings. The process assists schools in understanding the role of the portfolio and defense in preparing students for college, career, and civic life. The onboarding process can promote greater understanding of Linked Learning and of the portfolio and defense because it requires participants to self-select into this approach to learning.

Strategies to spread the portfolio and defense, as shared by district- and school-level personnel, are based on annual showcases of student work; student defense presentations at principal and district leadership meetings; and an open invitation to district leaders, school site personnel, and members of the community, including business and industry leaders, to attend Defense Design Studios. These strategies have contributed to growth in the number of Linked Learning pathways. Further, the rigorous onboarding process for Linked Learning enables the district to gauge the readiness of the school or SLC to develop support structures, allocate resources (including time for teachers to collaborate), and foster the shared support that leads to school-level ownership of the portfolio and defense.

- 2. Districts can balance structured support with flexibility that allows sites to make the performance assessment work their own.** In Los Angeles Unified, district-led professional learning and the coaching support is not standardized but instead is adapted to each Linked Learning pathway (an industry-themed school or SLC that integrates work-based learning, career and technical education, and academic content). This professional learning is intended to elevate best practices and assist pathways in identifying and

establishing the strategies that will work best for their particular context while still meeting overall district goals. In this context, professional learning develops the skills and the knowledge to establish a cohesive team at the pathway level that can come together to plan, problem-solve, and work toward continuous improvement of the portfolio and defense. Teachers are able to build a community of practice in which they can establish norms and protocols for shared learning and understanding. They also are able to adjust the portfolio and defense system to best meet the needs of their site. In doing so, teachers draw upon their content expertise, familiarity with students, and pedagogical knowledge to drive innovation in response to the needs of their students. The district plays a key role in assisting each Linked Learning pathway in establishing a balance of support and flexibility so that pathway teachers can reflect on their practices in an ongoing process of continuous improvement and structured growth.

3. **Districts can establish school structures and spaces that build relationships among students and staff.** In Los Angeles Unified, the smaller learning environments used in portfolio and defense implementation can foster relationships and facilitate collaboration, as students work in teams on interdisciplinary projects that have a relevant purpose. This work can take place in a Linked Learning pathway within a comprehensive high school, an advisory class, or a small group within a class. These smaller learning environments support students in being known by their peers and teachers in more profound ways. For example, advisory classes provide an opportunity for teachers to get to know students outside of the traditional academic curriculum and instructional routine. In doing so, they help students to feel known and encouraged to tackle challenges, take risks, seek assistance, and share their thoughts and ideas with others. These spaces also establish the norms and practices that can foster successful implementation of performance assessments such as the portfolio and defense. Working through authentic challenges and relevant projects in smaller learning environments can help students to feel comfortable expressing vulnerability and identifying areas for growth, a key skill for reflecting on their learning experience and learning identity as part of the senior portfolio defense presentation.
4. **Alignment of performance assessments and the broader instructional and curricular climate and practices of the district is critical.** A key role of the Los Angeles Unified Linked Learning Office is to create coherence across schools—to ensure that the distinctive features of each Linked Learning pathway continue to meet broader district goals and expectations. As such, the Linked Learning Office has worked to integrate portfolio and defense practices with district expectations for all Los Angeles Unified graduates. For example, the district’s Linked Learning Office has been working to integrate a graduate student profile into Los Angeles Unified’s college- and career-readiness plan for all graduates. Integrative efforts, including the delivery of a wide range of implementation supports such as professional learning and coaching, assist in aligning the portfolio and defense system with the broader instruction and practices of the district. These efforts can also situate the work of the Linked Learning Office, which is positioned under the Division of Instruction in Los Angeles Unified, as central to ongoing curriculum and instruction improvement efforts.

Conclusion

Los Angeles Unified School District, through its Linked Learning Office, continues to strengthen and improve its implementation of performance assessments. Almost 10 years after the district joined the Linked Learning District Initiative, the portfolio and defense model established by the Linked Learning Office continues to evolve and grow with technical support from a range of statewide partners. In 2018–19, approximately 24% of schools within Los Angeles Unified were implementing the portfolio and defense.⁶⁷ As more schools and SLCs onboard to Linked Learning annually, the number of students and schools implementing the portfolio and defense across the district is expected to increase.

While the portfolio and defense work currently lives within the Linked Learning Office, the Linked Learning staff and administrators continue to align the work with the learning goals of the larger district and state. The range of supports provided by the Linked Learning Office helps ensure that the distinctive features of each Linked Learning pathway continue to meet the goals and expectations of Los Angeles Unified. Supports are targeted to assist pathways in identifying and establishing the strategies that will work best for their particular context, while still meeting overall district goals and standards. Further, the Linked Learning Office is working to integrate and align portfolio and defense practices with district expectations for all Los Angeles Unified graduates, including a proposed graduate student profile.

Within Los Angeles Unified, establishing and expanding the use of the portfolio and defense means providing educators in Linked Learning pathways with the support and opportunity to develop the skills and knowledge to effectively implement the portfolio and defense and tackle implementation challenges. This support recognizes teachers as professionals and enhances their capacity to assert their expertise to innovate and tailor the portfolio and defense to their pathway.

Supports provided by the district also establish spaces for community building and help to deepen relationships among students and between students and teachers. Establishing a learning environment in which students feel supported to engage in collaborative, authentic learning opportunities and meaningfully reflect on their learning and growth is essential to building an effective portfolio and defense system.

Appendix A: Methodology

The goal of this study was to understand Los Angeles Unified’s implementation of a performance assessment initiative, referred to as the portfolio and defense. 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.⁶⁸ This case study is accompanied by a cross-case report.⁶⁹

Site Selection

The Learning Policy Institute (LPI) chose Los Angeles Unified as a case study site because this district represented an approach that was grounded in a decade of previous work on authentic student assessments. Los Angeles Unified was also actively engaged with the California Performance Assessment Collaborative (CPAC) and, therefore, had the 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 Linked Learning pathways that were each housed in different Los Angeles Unified high schools (Pathway A, Pathway B, and Pathway C). The pathways are not named in this study in order to protect the anonymity of the educators and students we interviewed. These pathways were selected in consultation with the district administrators most familiar with each pathway’s work around performance assessments. The researchers and these administrators chose pathways 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 strong Linked Learning pathways). 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.

In Los Angeles Unified, the selected schools varied in terms of size and approaches to implementing the portfolio and defense. Pathway A is an autonomous Pilot School located in Central Los Angeles serving approximately 400 students, 86% of whom are Latino/a. It was selected to represent an “experienced” site, having implemented the portfolio and defense for 10 years. Pathway B is also an autonomous Pilot School. Pathway B is located in Southeast Los Angeles and serves approximately 770 students (99% Latino). It was selected to represent a “midrange” site, with 5 years of experience with implementation of the portfolio and defense. Pathway C is a small learning community (SLC) serving 441 students within a large comprehensive high school. The larger school serves 2,400 students (96% Latino) and is located in an unincorporated area of Los Angeles County within the Los Angeles Unified boundary. Pathway C was selected to represent an “emerging” site. At the time of data collection, Pathway C was in its second year of Linked Learning implementation and in its first year of portfolio and defense implementation.

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.⁷⁰ 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 Los Angeles Unified in April 2020 to understand how schools in the district responded to the COVID-19 pandemic (Appendix F). 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	Los Angeles Unified
District Administrator and Staff Interviews	4
Principal and Assistant Principal Interviews	3
Teacher Leader and Instructional Coach Interviews	3
Teacher Focus Groups	3
Student Focus Groups	3
Observations of Students' Graduate Capstone Defenses	27
Observations of Teacher Professional Learning Sessions	5

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 three members of the Los Angeles Unified research team 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: Los Angeles Unified School District Linked Learning Senior Graduation Portfolio Defense Rubric

Presenter Name: _____

LAUSD Linked Learning Performance Assessment: Senior Graduation Portfolio Defense

PASS RESUBMIT Artifact(s) Required for Resubmission: _____

SCORING DOMAIN	EMERGING	E/D	DEVELOPING	D/P	PROFICIENT	P/A	ADVANCED
Mastery of Knowledge <i>What does this student know?</i>	<ul style="list-style-type: none"> Demonstrates limited content knowledge through some artifacts AND/OR context of each artifact is missing Unable to communicate the purpose of the lesson Provides unreliable evidence to support the thesis and arguments about the contents of the portfolio 	<ul style="list-style-type: none"> Demonstrates detailed content knowledge AND/OR explains only some context of each artifact and purpose of the lesson Provides appropriate, but inconsistent evidence to support the thesis and arguments about the contents of the portfolio 	<ul style="list-style-type: none"> Demonstrates detailed content knowledge through each artifact, including context of each artifact and purpose of the lesson Provides appropriate and consistent evidence to support the thesis and arguments about the contents of the portfolio 	<ul style="list-style-type: none"> Relates knowledge to the explanation of the world around him/her Clearly connects and applies learning from one area of study or point of view to another Thoroughly demonstrates evidence of the use and application of two pathway learning outcomes 	<ul style="list-style-type: none"> Demonstrates content knowledge through each artifact that goes beyond what was learned in class, including context of each artifact and purpose of the lesson Appropriate and consistent evidence is seamlessly interwoven into the presentation and defense to support the thesis and arguments about the contents of the portfolio 	<ul style="list-style-type: none"> Clearly relates knowledge to the explanation of the world around him/her Clearly connects and applies learning from one area of study to another and one point of view to another Thoroughly demonstrates evidence of the use and application of all pathway learning outcomes 	<ul style="list-style-type: none"> Recognition and discussion of his/her growth, accomplishments and successes are thoroughly interwoven into presentation and reflection of each artifact Honestly acknowledges areas where future growth and/or cognitive development are needed Has evidence of a concrete plan/strategy to improve
Application of Knowledge <i>What can this student do?</i>	<ul style="list-style-type: none"> Knowledge described is limited to the context of school Does not connect or apply learning from one area of study or point of view to another Does not connect or apply learning to pathway learning outcomes 	<ul style="list-style-type: none"> Somewhat relates knowledge to the explanation of the world around him/her Connects learning from one area of study or point of view to another without describing application or significance Thoroughly demonstrates evidence of the use and application of one pathway learning outcome 	<ul style="list-style-type: none"> Relates knowledge to the explanation of the world around him/her Clearly connects and applies learning from one area of study or point of view to another Thoroughly demonstrates evidence of the use and application of two pathway learning outcomes 	<ul style="list-style-type: none"> Recognizes and discusses his/her growth, accomplishments and successes Honestly acknowledges areas where future growth and/or cognitive development are needed Has a superficial plan/strategy to improve 	<ul style="list-style-type: none"> Recognizes and discusses his/her growth, accomplishments and successes are thoroughly interwoven into presentation and reflection of each artifact Honestly acknowledges areas where future growth and/or cognitive development are needed Has evidence of a concrete plan/strategy to improve 	<ul style="list-style-type: none"> Recognizes and discusses his/her growth, accomplishments and successes are thoroughly interwoven into presentation and reflection of each artifact Honestly acknowledges areas where future growth and/or cognitive development are needed Has evidence of a concrete plan/strategy to improve 	<ul style="list-style-type: none"> Recognition and discussion of his/her growth, accomplishments and successes are thoroughly interwoven into presentation and reflection of each artifact Honestly acknowledges areas where future growth and/or cognitive development are needed Has evidence of a concrete plan/strategy to improve
Meta-cognition <i>How reflective is this student?</i>	<ul style="list-style-type: none"> Does not allude to his/her growth, accomplishments and successes Somewhat acknowledges areas where future growth and/or cognitive development are needed Does not have a plan/strategy to improve 	<ul style="list-style-type: none"> Briefly mentions his/her growth, accomplishments and successes Honestly acknowledges areas where future growth and/or cognitive development are needed Has a superficial plan/strategy to improve 	<ul style="list-style-type: none"> Recognizes and discusses his/her growth, accomplishments and successes Honestly acknowledges areas where future growth and/or cognitive development are needed Discusses a concrete plan/strategy to improve 	<ul style="list-style-type: none"> Recognizes and discusses his/her growth, accomplishments and successes are thoroughly interwoven into presentation and reflection of each artifact Honestly acknowledges areas where future growth and/or cognitive development are needed Has evidence of a concrete plan/strategy to improve 	<ul style="list-style-type: none"> Recognizes and discusses his/her growth, accomplishments and successes are thoroughly interwoven into presentation and reflection of each artifact Honestly acknowledges areas where future growth and/or cognitive development are needed Has evidence of a concrete plan/strategy to improve 	<ul style="list-style-type: none"> Recognizes and discusses his/her growth, accomplishments and successes are thoroughly interwoven into presentation and reflection of each artifact Honestly acknowledges areas where future growth and/or cognitive development are needed Has evidence of a concrete plan/strategy to improve 	<ul style="list-style-type: none"> Recognition and discussion of his/her growth, accomplishments and successes are thoroughly interwoven into presentation and reflection of each artifact Honestly acknowledges areas where future growth and/or cognitive development are needed Has evidence of a concrete plan/strategy to improve

SCORING DOMAIN	EMERGING	E/D	DEVELOPING	D/P	PROFICIENT	P/A	ADVANCED
Presentation Skills <i>What is the evidence that the student can give a formal presentation?</i>	<ul style="list-style-type: none"> A lack of organization makes it difficult to follow the presenter's ideas Purpose and thesis is missing Makes minimal use of presentation skills: body, posture, language, eye contact, voice and timing Does not communicate clearly and uses language that is unsuited to the topic and audience Digital and/or Visual elements unrelated to or do not help clarify the presentation 		<ul style="list-style-type: none"> Inconsistencies in organization and limited use of transitions make it difficult to follow presenter's ideas at times Purpose and thesis is unclear Makes partial use of presentation skills: body, posture, language, eye contact, voice and timing Uses language that is at times unsuited conveying a thesis, ideas and opinions in defense of his/her learning Occasionally refers to Digital and/or Visual elements to demonstrate his or her learning 		<ul style="list-style-type: none"> Has clear and well-organized presentation (with beginning, middle and end, and utilizes appropriate transitions) Has a clear purpose and thesis Shows command of all presentation skills: body, posture, language, eye contact, voice and timing Communicates clearly and uses effective language to convey a thesis, ideas and opinions in defense of his/her learning Makes effective use of Digital and/or Visual elements to demonstrate his or her learning 		<ul style="list-style-type: none"> Has clearly and logically organized presentation (with engaging introduction, logically sequenced body with effective transitions, and a clear and convincing conclusion) Has a clear and convincing purpose and thesis Shows consistent command of all presentation skills: body, posture, language, eye contact, voice and timing that keep the audience engaged Communicates clearly and uses sophisticated and varied language to convey a thesis, ideas and opinions in defense of his/her learning Consistently makes effective use of Digital and/or Visual elements throughout the defense to demonstrate his or her learning
Questions and Comments <i>What is the evidence that the student can respond to spontaneous questions appropriately?</i>	<ul style="list-style-type: none"> Responds to questions without actually answering/addressing them Answers some questions from members of the panel without evidence/examples 		<ul style="list-style-type: none"> Responds to questions and comments from members of the panel Some evidence/examples given to support answers are unclear 		<ul style="list-style-type: none"> Responds directly to questions and comments from members of the panel Uses evidence/examples to convincingly support answers to questions 		<ul style="list-style-type: none"> Responds directly to questions and comments from members of the panel and shows spontaneous thinking skills by making sophisticated connections Uses evidence/examples from beyond the scope of the portfolio to convincingly support answers to questions

Pathway Learning Outcomes

[list and describe your pathway learning outcomes in this space]



Appendix C: Los Angeles Unified School District Linked Learning Problem-Solving Rubric

Problem Solving Rubric

Scoring Domain	Emerging	Developing	Proficient	Advanced
Defining the Problem	<ul style="list-style-type: none"> Begins to describe a simplified problem with incomplete description of criteria or constraints. 	<ul style="list-style-type: none"> Describes the problem completely. Includes several criteria and practical constraints (e.g. materials, time, or cost). 	<ul style="list-style-type: none"> Describes the problem completely and includes a rationale. Addresses multiple criteria and constraints, including one or more social, technical, or scientific constraints relevant to the problem. 	<ul style="list-style-type: none"> Describes the problem thoroughly and precisely, and includes a rationale. Fully addresses criteria and relevant social, technical, and/or scientific constraints to the problem. When relevant, addresses unknown variables and raises relevant questions to more clearly define the problem.
Applying Adaptive Problem-Solving Strategies	<ul style="list-style-type: none"> Identifies a general approach to addressing the problem with minimal description of the tasks, procedures, or strategies. Sequences tasks in a way that limits ability to meet deadlines. 	<ul style="list-style-type: none"> Identifies and partially describes essential tasks, procedures, or strategies that somewhat addresses the problem. Lists some tools, instruments, and resources. Adjusts schedule and approach without compelling reasons from external circumstances. 	<ul style="list-style-type: none"> Identifies and describes essential tasks, procedures, and/or strategies that address the problem. Identifies appropriate tools, instruments, and resources to support the problem-solving strategy. Adjusts the schedule and approach as required by circumstances while still completing by the final deadline. 	<ul style="list-style-type: none"> Clearly identifies and thoroughly describes essential tasks, procedures, and/or strategies that address the problem. Identifies and describes appropriate tools, instruments, and resources to support the problem-solving strategy. Makes adjustments to the schedule and approach as required by circumstances while still completing ahead of final deadline.
Interpreting Data and Information to Make Valid Claims	<ul style="list-style-type: none"> Interprets data and information inaccurately and/or inconsistently with the claims. 	<ul style="list-style-type: none"> Interprets data and information to generate claims about a phenomenon or solution. Discusses some limitations of the findings. 	<ul style="list-style-type: none"> Interprets data and information to generate accurate claims about a phenomenon, model, or solution. Discusses some possible sources of errors, limitations, and/or outliers. 	<ul style="list-style-type: none"> Interprets and synthesizes data and information from varied sources to generate credible and precise claims about a phenomenon, model, or solution. Discusses multiple possible sources of errors, limitations, and/or outliers.
Evaluating Possible Solutions	<ul style="list-style-type: none"> Attempts to evaluate the merit of a solution to a problem by discussing generally how it meets the criteria or constraints of the problem, with minimal reference to evidence. 	<ul style="list-style-type: none"> Evaluates the merit of a solution to a problem by discussing how it meets specific criteria and constraints of the problem, with clear citation of evidence. 	<ul style="list-style-type: none"> Evaluates competing solutions to a real-world problem using evidence and disciplinary ideas and principles. For the selected solution, explains whether evidence satisfies design criteria and constraints. 	<ul style="list-style-type: none"> Evaluates competing solutions to a real-world problem using evidence, disciplinary ideas and principles, and logical arguments that are based upon relevant factors (e.g. economic, societal, environmental, ethical, etc.). Explains how each solution answers the design criteria and satisfies the constraints. Explains limitations of each solution pathway.

Adapted from the Two Rivers Public Charter School Rubric for Problem Solving and Summit Cognitive Skills Rubric

<p>Designing a Solution</p>	<ul style="list-style-type: none"> • Designs a solution to address a problem with little or no connection to criteria or constraints. 	<ul style="list-style-type: none"> • Designs a solution that addresses a problem while satisfying core criteria and constraints. • Evaluates the solution but only referring to evidence. • Makes some attempt to improve results or products. 	<ul style="list-style-type: none"> • Designs a solution that addresses a real-world problem and/or the client's needs while satisfying most restraint criteria. • Evaluates the solution based on accurate analysis of research and findings. • Follows through on a plan to improve accuracy of results or quality of product. 	<ul style="list-style-type: none"> • Designs a solution that effectively addresses a real-world problem and/or the client's needs while satisfying all restraint criteria. • Evaluates the solution based on accurate analysis of research and findings using credible data and sources. • Follows through on a plan to improve the accuracy of results or quality of product based on results and/or feedback.
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Adapted from the Two Rivers Public Charter School Rubric for Problem Solving and Summit Cognitive Skills Rubric

Appendix D: Los Angeles Unified School District Linked Learning Argumentation Rubric

Argumentation Rubric

Scoring Domain	Emerging	Developing	Proficient	Advanced
Thesis/Argument & Context <i>How can I construct an effective and convincing argument?</i>	<ul style="list-style-type: none"> Topic is unclear or underdeveloped Does not situate the issue within any other context 	<ul style="list-style-type: none"> Main idea/thesis/argument is somewhat clear and on-topic but may be general Makes references to another context 	<ul style="list-style-type: none"> Main idea/thesis/argument is clear, developed, and consistent throughout the writing Situates issue in a cultural, historical, and/or global context 	<ul style="list-style-type: none"> Main idea/thesis/argument is clear, well-developed, nuanced, and consistent Situates the issue within cultural, historical, global context and elaborates on the significance of the issue in these contexts
Argumentative Claim <i>How do I use claims to support a strong argument?</i>	<ul style="list-style-type: none"> Makes unclear or irrelevant claims Sequencing of claims and is confusing 	<ul style="list-style-type: none"> Makes relevant claims Sequencing of claims supports the student's point of view but may be confusing at times 	<ul style="list-style-type: none"> Makes relevant claims that support the argument Sequencing of claims is clear and supports the reader's understanding 	<ul style="list-style-type: none"> Makes relevant and significant claims that support the argument Sequencing of claims creates a coherent structure that builds the reader's understanding throughout the writing
Counterclaim <i>How do I take into account opposing viewpoints to further my argument?</i>	<ul style="list-style-type: none"> One claim dominates the argument and alternative or counterclaims are absent 	<ul style="list-style-type: none"> Briefly alludes to questions or counterclaims 	<ul style="list-style-type: none"> Acknowledges questions or counterclaims with some evidence or detail Points out limitations of counterclaims 	<ul style="list-style-type: none"> Acknowledges and responds to questions or counterclaims to sharpen the argument with sufficient evidence or detail Points out strengths and limitations of counterclaims in a way that anticipates the reader's concerns, values, possible biases, and questions
Selection and Use of Evidence <i>How do I use a variety of relevant evidence to support my claims?</i>	<ul style="list-style-type: none"> Selects evidence with minimal relevance to main claim(s) 	<ul style="list-style-type: none"> Selects relevant evidence that support main claim(s). Evidence for subclaims is limited or weakly related 	<ul style="list-style-type: none"> Selects a variety of relevant evidence that support main claim(s). Evidence generally supports subclaims 	<ul style="list-style-type: none"> Selects a variety of detailed, significant evidence (i.e. qualitative/quantitative data, primary and secondary sources, text, multimedia, experimental) that support and develop both main claim(s) and subclaims
Explanation of Evidence <i>How can I analyze selected evidence to support my thesis/</i>	<ul style="list-style-type: none"> Includes relevant facts, definitions, and/or details (and relevant illustrations when appropriate) 	<ul style="list-style-type: none"> Explains relevant facts, definitions, concrete details, and/or examples (as well as illustrations or multimedia when appropriate) that support the opinion/main idea 	<ul style="list-style-type: none"> Provides clear analysis that accurately explains how the selected evidence supports claims or statements 	<ul style="list-style-type: none"> Provides insightful, clear, compelling analysis that thoroughly and accurately explains how the evidence supports claims or statements Where applicable, analysis addresses weakness(es) or gaps in the evidence

Adapted from Summer Learning Cognitive Skills Rubric and New Tech Network Science Argumentation Rubric

<i>argument?</i>				
<p>Integration of Evidence</p> <p><i>How do I represent evidence accurately in text?</i></p>	<ul style="list-style-type: none"> • Presents information from experiences or sources in brief notes taken in a provided organizer. 	<ul style="list-style-type: none"> • Presents relevant evidence from experiences or sources through accurate summary or paraphrase at appropriate places within the text. 	<ul style="list-style-type: none"> • Evidence is presented objectively and accurately positioned in the text, and contextualized with introductory and/or explanatory phrases or statements. 	<ul style="list-style-type: none"> • Evidence is presented objectively and accurately, positioned and contextualized appropriately, and excerpted, paraphrased, or summarized strategically. • Evidence is integrated into the text in a variety of ways (e.g. breakout quotes, combination of summary and direct quote) that support the argument

Adapted from Summer Learning Cognitive Skills Rubric and New Tech Network Science Argumentation Rubric

Appendix E: Los Angeles Unified School District Linked Learning Analysis Rubric

Analysis Rubric

Scoring Domain	Emerging	Developing	Proficient	Advanced
Analyze Driving Question	<ul style="list-style-type: none"> Sees only superficial aspects of, or one point of view on, the Driving Question Asks some follow-up questions about the topic, but does not dig deep 	<ul style="list-style-type: none"> Identifies some central aspects of the Driving Question, but may not see complexities or consider various points of view Attempts to integrate information to address the Driving Question 	<ul style="list-style-type: none"> Shows understanding of central aspects of the Driving Question <ul style="list-style-type: none"> Identifies in detail what needs to be known Considers various possible points of views Asks follow up questions that focus or broaden inquiry Asks follow up questions to gain understanding of wants and needs of audience or product users 	
Gather and Evaluate Information	<ul style="list-style-type: none"> Is unable to integrate information to address the Driving Question <ul style="list-style-type: none"> Gathers too little, too much, or irrelevant information Does not use enough sources Accepts information at face value; does not evaluate its quality 	<ul style="list-style-type: none"> Attempts to integrate information to address the Driving Question Understands that the quality of information should be considered, but does not do so thoroughly 	<ul style="list-style-type: none"> Integrates relevant and sufficient information to address the Driving Question <ul style="list-style-type: none"> Information gathered from multiple and varied sources Thoroughly assesses the quality of information (considers usefulness, accuracy and credibility, distinguishes fact vs. opinion, recognizes bias) 	
Use Evidence and Criteria	<ul style="list-style-type: none"> Accepts arguments for possible answers without questioning whether reasoning is valid Uses evidence without considering the strength Relies on "gut feeling" to evaluate and revise ideas, product prototypes or problem solutions 	<ul style="list-style-type: none"> Recognizes the need for valid reasoning and strong evidence, but does not evaluate it carefully Evaluates and revises ideas, product prototypes or problem solutions based on incomplete or invalid criteria 	<ul style="list-style-type: none"> Evaluates arguments for possible answers by assessing whether reasoning is valid and evidence is relevant and sufficient Justifies choice of criteria used to evaluate ideas, product prototypes or problem solutions Revises inadequate drafts, designs or solutions and explains why they will better meet evaluation criteria 	
Justify Choices, Consider Alternatives & Implications	<ul style="list-style-type: none"> Cannot give valid reasons or supporting evidence to defend choices made Does not consider alternative answers, designs for products, or points of view Is not able to explain important new understanding gained in the project 	<ul style="list-style-type: none"> Explains choices made, but some reasons are not valid or lack supporting evidence Understands that there may be alternative answers or designs for products, but does not consider them carefully Can explain some things learned in the project, but is not entirely clear about new understanding 	<ul style="list-style-type: none"> Justifies choices made by giving valid reasons with supporting evidence Recognizes the limitations of an answer or product design and considers alternative perspectives Can clearly explain new understanding gained in the project and how it might transfer to other situations or contexts 	

Adapted from BUCK Institute for Education Critical Thinking Rubric

Appendix F: Pathway-Level Flexibility Supported by Districtwide Professional Development in a Pandemic

In March 2020, California schools and districts moved to distance learning in response to the COVID-19 pandemic. 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.⁷¹ Across the state, districts worked diligently to establish distance learning plans, and many struggled to ensure that all students had access to the internet.⁷²

When the pandemic hit, Los Angeles Unified encouraged Linked Learning pathways to make individual decisions about their culminating performance assessment requirements. Seniors in all pathways had begun compiling their portfolios at the beginning of the school year. Many schools had planned for students to present their work after spring break; instead, they shifted to distance learning. In Los Angeles Unified, pathway administrators and lead teachers who chose to move forward with a virtual portfolio defense framed it as an opportunity to celebrate student achievement and retain at least one rite of passage for seniors. In these cases, it was optional for students to participate. Approximately 15 pathways moved forward with some version of a virtual portfolio defense out of the 66 total Linked Learning pathways in Los Angeles Unified.

Distance learning interrupted teachers' standard approaches to checking in with and motivating their 12th-grade students. The district also passed a grading policy that prohibited teachers from failing students. These forces pushed educators to rethink student engagement as well as their approach to assessment. Schools that chose to provide the option for students to present their portfolio defenses virtually were typically more established Linked Learning pathways that have a culture around seniors' portfolio defenses as a celebration of student learning. Educators at these schools found that students engaged with the virtual portfolio defense more readily than they did with other assignments. Some educators felt that this may have been due, in part, to students' appreciation of the relevance to them of aggregating and reflecting on their portfolios and preparing to defend their learning. Some schools saw nearly half of their seniors completing an optional portfolio defense presentation.

To support educators in shifting this work online, the Linked Learning Office provided virtual professional development support, led by coaches who would otherwise be spending that time at specific school sites. Members of the Linked Learning Office coordinated resources aligned to schools' needs and built out virtual learning modules that were a balance of self-guided and coach-led activities, as well as digital resources on performance assessment. These learning modules and resources had previously been part of a long-term professional learning plan that the Linked Learning team had not had the opportunity to prioritize. The Linked Learning Office also provided opt-in virtual professional development sessions on other types of virtual presentations of learning and on using Universal Design for Learning (UDL) to establish an accessible portfolio and defense. These professional learning opportunities were open to all teachers in the district, and they had impressive uptake, including with educators who were not part of the Linked Learning Initiative. Over 2,400 teachers in Los Angeles Unified chose to attend the professional development session on virtual presentations of learning, representing approximately 10% of the district's teachers.⁷³ Members of the Linked Learning Office plan to use the resources that they developed during this time to support onboarding to the portfolio and defense moving forward.

Endnotes

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27. Name changed to respect the confidentiality of the student.

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