

Framework

for Developing a System of Linked Learning Pathways



Foundation

Introduction

Many school districts and high schools provide well-designed pathways that combine rigorous academic instruction with technical education and real-world experience into a career-themed program of study. This Linked Learning approach helps districts and high schools prepare all students for *both* college and career, not just one objective or the other. With their focus on collaboration and student learning outcomes, pathways provide an effective structure and strategy for implementing the Common Core State Standards (CCSS) as well as nurturing the development of 21st century skills.

Experiences in California and nationally have proven that a Linked Learning approach to high school improvement can more effectively engage students, reduce high school dropout rates, raise student achievement, increase rates of high school completion and transition to postsecondary education, and boost students' earning power after high school. Despite that track record, pathways are seldom central to district-driven high school improvement strategies. In fact, historically pathways have been developed by a motivated teacher or a visionary principal in spite of the system, rather than with support from it. If pathways are merely the initiative of a dedicated individual, that person's departure can cause the pathway(s) to falter or fail. Such a programmatic approach is not sustainable. More significantly, a programmatic approach creates inequities in choice and access; only some district students gain access to pathway options, and the range of those options may be limited to one or two industry sectors—for example, a health academy or a pre-engineering program.

With limited resources and constant pressure to meet the varied needs of multiple constituents, districts cannot afford to create pathways as add-on or special programs. Instead, implementing a robust system of pathways that ultimately serves the *vast majority* of high school students in the district can effectively leverage and maximize existing district and community resources to provide equitable student access to a range of pathway options. Unless and until a district establishes and advances toward a clear goal in which the majority of its students participate in pathways, there will be little impetus to shift policies, structures, and culture in a way that adequately supports them. Ultimately, such systems do more than improve high schools; they also strengthen the communities they serve.

ConnectEd's *California Linked Learning District Initiative* was initiated to produce comprehensive, *districtwide systems* of quality pathways. The term "districtwide system" means that districts use strategies to ensure that *any* student can choose among many quality pathways throughout the district. Ideally, any student would have access to pathways in at least six and perhaps as many as 12 different industry sectors that make up the Linked Learning Framework. That does not necessarily mean, however, that every high school in the district must offer pathways. Nor does it mean that pathways must fully replace traditional programs of study.

Such a system may take several forms—for example, four to five “wall-to-wall” pathways offered at one or more large high schools; two or three different academies offered at each of several high schools; a number of small career-themed schools; or some combination thereof. Pathways also may use different delivery models—for example, career academies (such as California Partnership Academies, National Academy Foundation programs) and career-themed small learning communities (SLCs), STEM academies, small schools, charter schools, or magnet schools and programs. Most importantly, no matter what the delivery model, pathways need to be a central focus of district policy and structured institutional support.

Shifting the district’s vision and processes to support the significantly different needs and aspirations of pathway students, their teachers, and the schools that house them is a major undertaking—touching every major aspect of district life. As demonstrated throughout this Framework, developing a system of pathways requires thoughtful planning and coordinated implementation by a team of stakeholders that represent school and district leaders, the business community, unions, postsecondary partners, city government, community groups, parents, and students.

Defining Pathway Quality

It is up to district leaders to create the conditions and climate within which high-quality pathways can develop and be sustained. Step one, however, involves leaders developing an understanding of the **Essential Elements of a Quality Linked Learning Pathway** (see following pages).

These Essential Elements serve as the basis of this District Framework because they define what constitutes a high-quality Linked Learning pathway. When a school district and its community are committed to supporting a *system* of Linked Learning pathways, they assume responsibility for assuring that the conditions are in place to establish, improve, and sustain pathways that meet these quality criteria. These conditions are significantly different from the conditions required to support traditional comprehensive high schools.

These Essential Elements were developed by a Design Team composed of leaders from many organizations who have deep knowledge of and experience with career academies and other forms of Linked Learning pathways. The Essential Elements, to be published in October 2013, have evolved over several years. They reflect research and evaluation findings, plus the collective wisdom of a large field of Linked Learning practitioners. They are also aligned with similar tools developed by leading organizations and networks across the country.

Defining Pathway Quality: Essential Elements of a Quality Linked Learning Pathway

Student Outcomes-Driven Practice

The progress of every student toward achieving measurable and consequential learning outcomes is the driving purpose for the pathway community of practice. The pathway team regularly reviews several kinds of evidence, including (1) performance-based measures of pathway-specific student learning outcomes; (2) information on students' level of performance, available from student information systems; (3) individual student growth in performance, both on pathway-specific learning outcomes and on transcript-based measures; (4) students' success after high school in postsecondary education and employment, if available; and (5) trends over time in all these measures for the pathway students as a group. The team uses data on a monthly basis to inform and improve professional practice, and on an annual basis to revise the pathway improvement plan.

Equity, Access, and Achievement

A Linked Learning pathway pursues both excellence and equity as mutual goals. A pathway establishes high achievement expectations for all students and practices non-discriminatory and inclusive policies, practices, and pedagogy. The pathway is equitably accessible to and serves well any interested student, regardless of race, ethnicity, gender, sexual orientation, socioeconomic status, special needs, or prior academic achievement. An equity-focused pathway intentionally reflects the diversity and strengths of its school, community, and district, and the grouping of its students is heterogeneous, flexible, and equitable.

Program of Study

An industry-themed pathway program of study brings coherence to the four core components of Linked Learning: rigorous academics, real-world technical skills, work-based learning, and personalized supports. It intentionally coordinates and sequences student learning experiences in a way that integrates rigorous academic and technical core curricula. The pathway theme is broad enough to appeal to and engage all students. The program of study maximizes cohort scheduling to ensure that all pathway students are offered the opportunity to earn postsecondary credit and are prepared for success in the full range of postsecondary options.

Learning and Teaching

Pathway students engage in inquiry- and project-based learning that is outcome-focused, rigorous, relevant, and collaborative. Members of the pathway community of practice plan such learning experiences for students: they regularly collaborate to develop and articulate standards-aligned grade-level, course, and project outcomes to organize the pathway's program of study and guide assessment, curricular, and instructional planning. They also use performance assessment tasks with common rubrics to assess, monitor, and support every student's progress toward mastery of college and career ready pathway learning outcomes. The community of practice regularly engages in professional learning, evidence-based inquiry, and reflection to continuously improve their practice.

Work-Based Learning (WBL)

All students participate in a personalized and coordinated continuum of work-based-learning (WBL) experiences designed to help them master and demonstrate academic, technical, and 21st Century skills, as identified in the pathway student learning outcomes. WBL builds on and extends every pathway's program of study. WBL occurs in-person and online: in the work place, the community, and at school. Students acquire academic, technical, and 21st Century knowledge and skills through WBL, all of which enhance their preparedness for the demands of college and careers.

Personalized Student Support

Every pathway student is supported by pathway staff, partners, and families. The pathway community of practice tailors learning experiences to students' individual developmental needs, skills, strengths, interests, and aspirations. Pathway staff, in consultation with families and service providers, identify and address the academic, personal, and social-emotional needs of every student so that she or he makes progress toward achieving personalized college and career goals and pathway student learning outcomes.

Pathway Leadership and Partnerships

The pathway staff, school and district leaders, and partners share responsibility for program effectiveness and accountability for student outcomes. These stakeholders assure that conditions are in place to establish and sustain pathway quality. The pathway engages a formal advisory board that serves as an organizing structure to effectively engage a core of stakeholders, including business, postsecondary, and community partners

Purpose of This Framework

This Framework is intended for use by school districts and their community partners as they plan and implement a system of quality pathways.

The Five Critical Conditions that make up this Framework are intended to deepen and clarify the district’s thinking about the infrastructure needed to support the design, implementation, and sustainability of a system of quality pathways. To that end, the conditions describe the *outcomes* of the system-building work of the district and its partners (the “what”).

This Framework serves as both the knowledge base and organizational structure for the full set of ConnectEd-developed tools. These tools will help districts and their community partners design, plan, implement, and sustain a system of Linked Learning pathways (the “how”).

Critical Conditions for Developing a System of Linked Learning Pathways

D1. Leadership Commitment and Accountability

- D1.1 Shared Vision and Commitment
- D1.2 Communication and Messaging
- D1.3 Distributed Leadership
- D1.4 Board Support and Strategic Alignment
- D1.5 Pathway Expansion
- D1.6 Pathway Quality and Continuous Improvement
- D1.7 District Success Indicators
- D1.8 Student-Level Data
- D1.9 Evaluation and Accountability

D2. Support for High-Quality Learning and Teaching

- D2.1 Support to Improve Instruction
- D2.2 Systems of Intervention and Acceleration
- D2.3 Infrastructure to Support Quality Work-Based Learning (WBL)
- D2.4 Balanced Assessment and Accountability
- D2.5 Schedules to Support Pathway Quality

D3. Student Equity, Access, and Choice

- D3.1 Practices That Promote Equity and Rigor
- D3.2 Policies That Ensure Access and Choice
- D3.3 Student Recruitment and Pathway Selection
- D3.4 K-8 Career Exploration
- D3.5 Academic Preparation in Middle School

D4. Sustained Partnerships

- D4.1 Postsecondary Partnerships
- D4.2 Student Support Services
- D4.3 Concurrent Enrollment Options
- D4.4 Master Plan for Sustainable Workforce Competitiveness
- D4.5 Community Engagement

D5. Operational Alignment

- D5.1 Recruitment and Hiring Practices
- D5.2 Evaluating Teachers and Administrators
- D5.3 Retaining Qualified Pathway Teachers
- D5.4 Facilities and Equipment
- D5.5 Leveraging Existing and Developing New Resources
- D5.6 Sustained Fiscal Stability

D1

Leadership Commitment and Accountability

In most school districts and communities, existing pathways have developed organically as programs, but not as part of a systemic approach. In order to plan and adopt a system of quality pathways, district and school leaders, the business community, local postsecondary institutions, labor unions, and community and parent groups commit to a shared vision and dedicate the necessary resources to put the vision into practice and sustain it. That work includes engaging in a comprehensive and thoughtful process and plan for expanding pathways in order to serve a targeted percentage of district students.

Leaders also commit to regular examination and ongoing improvement of pathway quality, with the objective of moving each pathway to a high level of quality and fidelity. Pathway improvement is directly aligned with and measured by student outcomes related to a set of common indicators. Without systems in place to collect and examine student-level data and evaluate the benefits of pathway participation against a set of success indicators, districts will find it hard to be accountable to their multiple constituencies.

D1.1 Shared Vision and Commitment

- The district's leaders, with input from all internal and external stakeholders, have established a common vision of student success in a "**Graduate Profile**"— a limited list of cross-disciplinary student learning outcomes that all agree are essential for all students to master by the time they graduate high school in order to demonstrate readiness for success in college, career, and civic life.
- The superintendent, executive cabinet, school board, high school principals, and community leaders actively support and pursue Linked Learning pathway implementation as *the primary strategy* for delivering secondary education and guiding students toward mastery of the outcomes defined in the Graduate Profile. They serve as **visible and public champions** who make it clear to stakeholders that Linked Learning is a priority for the district. They speak knowledgeably about its potential to engage students, transform their high school experiences, reduce high school dropout rates, raise student achievement, increase rates of high school completion and transition to postsecondary education, and boost students' earning power.
- High school principals are able to clearly articulate how the specific vision of their school community, including their School-wide Learning Outcomes, are consistent with the District Graduate Profile and are reflective of the district's

vision and its commitment to Linked Learning. The principal makes it clear how the site and district visions are complementary and will serve as major levers of change.

- School site, district, and community leaders demonstrate their commitment to expanding pathway options in an equitable and accessible way by drafting and approving **resolutions**, supportive **policies**, agreements, investments, and processes that support equitable student access to any and all pathways. They review all initiatives that affect high schools for alignment with Linked Learning.
- The district has hired and/or appointed a **dedicated Linked Learning director** in a position with district-level authority (i.e., cabinet level or someone who reports directly to a cabinet member) who assumes ultimate responsibility for implementation. Eventually, when a district Linked Learning system is well-established, this role is assumed by an assistant superintendent for educational services or a person with a similar role.
- District executive leadership identifies and contracts with an **external district coach** who supports the leadership team to think and act systemically and strategically; broaden engagement and buy-in; ensure equity, access, and quality; and strengthen alignment of efforts.
- District executive leadership and site principals dedicate the resources to identify and build capacity of **internal pathway coaches** who provide on-the-ground support to pathway teams to operate as high-functioning communities of practice, establish student learning outcomes, design projects and performance tasks, and focus on continuous improvement.

D1.2 Communication and Messaging

- The district communications officer, along with district and school site leaders and community partners, establishes a comprehensive **communications plan** that begins with the vision and includes key messages for and strategies to engage a range of stakeholders. Guided by the communications plan, the superintendent, school board members, the executive cabinet, school principals, and community leaders use consistent language to articulate to their constituents their shared vision and purpose for Linked Learning and its alignment with other district priorities and initiatives (e.g., the Common Core State Standards). They understand the unique role that their messaging plays in ensuring stakeholder support and effective implementation.

- The plan places priority on the early engagement of teachers and site administrators, because the majority of the implementation of quality pathways falls squarely on their shoulders. It attends to the need for teachers and site administrators to have a deep understanding of pathway quality.

D1.3 Distributed Leadership

- A **cross-district leadership team**, consisting of the Superintendent—or a cabinet-level designee—and most of the district’s departments,¹ along with school principals and pathway leaders, is formed and meets regularly during the transition to a Linked Learning system to:
 - Oversee the completion of key activities and deliverables in the district’s multi-year Linked Learning implementation plan;
 - Provide necessary resources for all departments to support the success of pathways and ensure that efforts are aligned and that no district structures or functions impede pathway expansion and quality;
 - Establish structures, routines, communication channels, and effective processes to collaboratively address pathway implementation challenges at both programmatic and systemic levels; and
 - Hold pathways and school sites accountable for improving student outcomes while allowing for site and pathway flexibility in determining the curriculum, instructional practices, pacing, structures, and scheduling that will result in reaching those outcomes.

Eventually, once a Linked Learning system is well-developed, the functions of the leadership team are assumed by the superintendent’s cabinet or another high-level cross-functional team.

- District leaders and high school administrators support the development of high-functioning **pathway communities of practice** that collectively commit to continuously improve pathway quality so that all students attain pathway outcomes.
- A **broad-based coalition** of local and regional organizations represented by key community leaders forms to share:

¹ Including assistant superintendents and/or directors for curriculum and instruction, secondary education, professional development, career and technical education, research and evaluation, assessment and accountability, guidance and counseling / student supports, afterschool programs, human resources, facilities, and finance.

- A *common vision* for improving educational opportunities for youth, leading to greater economic vitality and civic participation;
- A *commitment* to expanding quality pathways as a primary strategy for improving district high schools and student outcomes;
- *Responsibility* for designing, implementing, and sustaining high-quality pathways and the systems that support them; and
- *Accountability* for results—students graduating from high school ready for success in college, career, and life.

Over time, the broad-based coalition becomes formalized with designated high-level leadership; clearly defined membership; articulated, multi-layered structures; defined functions with real authority; working groups, each with a work plan; and adequate resources to support their work. The coalition supports an ongoing shift in the relationship between the district and the broader community.

D1.4 Board Support and Strategic Alignment

- The school board has introduced resolutions and adopted new and/or modified policies that support a more balanced accountability system based on the graduate profile, greater student access to quality pathways, support for work-based learning, as well as other Critical Conditions listed below.
- The district has ensured that the planning and adoption process for a system of pathways is aligned with other district priorities, strategies, and plans; has addressed conflicting or contradictory practices and policies; and strive to create a **confluence of efforts** organized around a single plan for secondary education transformation. That includes making it clear to all district personnel and school principals that Linked Learning is *the district's primary approach* to secondary reform. Their support of its development and success is non-negotiable.
- With its industry and community partners, the district has ensured that the planning and adoption of a system of pathways are coordinated with *civic, workforce, economic development, and community* priorities, strategies, and plans.
- The district and community have thoughtfully considered ways to leverage resources, reduce duplication of efforts, and maximize capacity to accomplish their goals.

D1.5 Pathway Expansion

- District leaders, along with business, industry, civic, and community partners, have developed a **plan for expanding pathway options** for students. In doing so, they:
 - Establish a **target** for what percentage of high school students will be served by Linked Learning pathways by a particular year and create a **projection chart** to plan for growth, year by year, school by school, pathway by pathway, and grade by grade;
 - Ensure that the **industry themes** of current and future pathways align with student interests, local and/or regional workforce needs, the availability of reliable business and industry partners, current course offerings and resources of local occupational training providers, articulation opportunities with local colleges and apprenticeship programs, and interest and experience of academic and career and technical teachers;
 - Examine and select among different pathway **delivery models** (e.g., career academies, career-themed small learning communities (SLCs), themed small schools, and others) and ensure that, no matter the delivery model, all pathways adhere to the Linked Learning core components; and
 - Create or adopt a **process** for planning, developing, and supporting **new pathways** (see the ConnectEd guide *Building a Linked Learning Pathway*).

D1.6 Pathway Quality and Continuous Improvement

- District leaders expect each pathway to commit to ongoing improvement and, within a limited number of years, reach a level of quality and fidelity that may be marked by **Linked Learning Pathway Certification** or a similar quality indicator.
- District leaders have established a process by which each pathway community of practice and its advisory board focuses on **continuous improvement**. By using the ConnectEd *Linked Learning Pathway Assessment Rubric* (or another appropriate instrument), they assess their current level of pathway quality, set goals, and create an action plan for improvement so that they reach and sustain a level of quality and fidelity to become and remain Linked Learning certified.

D1.7 District Success Indicators

- Through a collaborative process, the broad-based coalition (see A.3. above) identifies a limited, but clear, **set of indicators** to measure the success and impact of pathways. These success indicators may include the following:
 - Traditional measures of student performance on standardized tests and exams;
 - Additional measures of student achievement including 21st century skills (as identified in the Graduate Profile), high school graduation rates, attainment of industry certification, and rates of postsecondary transition, persistence, and completion;
 - Measures of student engagement and of student and parent satisfaction; and
 - Indicators of social and economic well-being (i.e., reduction in juvenile crime, unemployment among 18- to 24-year-olds, voter registration rates among youth, and income tax revenue).
- District leaders establish processes to present and share (i.e., data dashboard) their progress in meeting the success indicators with the school board, community members, industry partners, staff, and other stakeholders.

D1.8 Student-Level Data

- The district develops data collection and management systems that allow them to disaggregate student **data based on pathway participation**.
- The district establishes mechanisms by which pathway teachers, school and district leaders, and industry and community partners may gain access to student data to use for effective decision making and continuous program improvement.

D1.9 Evaluation and Accountability

- District leaders build a districtwide **culture of mutual accountability** for student progress toward and attainment of the student learning outcomes identified in the Graduate Profile, using a variety of data transparency and peer-based strategies, as well as traditional supervision and evaluation practices. Similarly, district and community leaders represented in the broad-based coalition collectively hold themselves accountable for annually showing improvements on selected success indicators.

- District leaders create a district culture in which the right data are regularly used to monitor student progress, pathway quality, and equity. Data systems are user-friendly and designed to be used by staff and community at all levels both for information and improvement. The district takes regular action to provide training and guidance as well as up-to-date technology to facilitate the use of evidence and data. The superintendent and community leaders communicate clearly and regularly to all internal and external stakeholders and partners about the aggregate student outcomes, pathway results, and progress on established success indicators.

D2

Support for High-Quality Learning and Teaching

The district has articulated a clear description of powerful student learning and the instructional practices that support that learning and has ensured that every student attains the outcomes described in the Graduate Profile. The district organizes and aligns support systems for curriculum, assessment, instruction, and professional development based upon an assessment of both students' and teachers' strengths and needs in relation to outcomes, regularly solicits input and feedback from students and teachers, and examines evidence of student learning in order to continuously improve effectiveness.

Understanding that pathway quality depends upon teachers' ability to work effectively as a community of practice and opportunities for students to collaborate regularly on multi-disciplinary projects, district and high school leaders commit to developing master schedules that guarantee common planning time for grade-level teams of pathway teachers and cohort scheduling for pathway students.

D2.1 Support to Improve Instruction

- The district uses or adapts the ConnectEd ***Learning, Teaching and Leading Framework*** to support student and teacher growth in pathways. That Framework describes outcome-focused student learning behaviors and the instructional and leadership practices that help students develop those behaviors. The framework provides both a common vocabulary for staff to discuss instructional practice and quality criteria to calibrate their observations and self-reflections.
- The district uses the *Community of Practice Continuum* (see the *Learning, Teaching and Leading Framework*) to create a culture that values teacher team collaboration that is centered on student learning. To that end, the district provides or arranges for professional development and coaching that focuses on

building effectiveness in teacher leadership, team development, a cycle of inquiry protocols, culturally responsive instructional design and practice, and the management of project-based learning and partnership development.

- The district develops **protocols** for the evidence-based observation and analysis of classroom practice. Data collected from these observations inform individual teacher and team or site-based goal setting and professional development, aligned with the instructional framework.
- The district provides the time and support necessary to create the structural conditions for instructional improvement, including the availability of rigorous and relevant curriculum; instructional leadership development of teachers and administrators; and site-based and centralized professional development on academic and technical standards, effective instructional design and delivery, performance assessment, and collaborative teacher cycles of inquiry using student work and other data sources.

D2.2 Systems of Intervention and Acceleration

- District leaders ensure that all pathway students have equitable and appropriate access to high-quality **supplementary learning opportunities**, both within and beyond the regular school day and classroom, in order to accelerate and sustain student progress toward pathway learning outcomes.
- District and site leaders support and expect pathway teachers to routinely design rigorous and relevant learning activities and projects that reflect and respond to the diversity of student interests, strengths, cultural assets, and ways of learning.

D2.3 Infrastructure to Support Quality Work-Based Learning

- The district and its industry partners commit the necessary resources to establish the **technology** and **staff infrastructure** to support a sequence of work-based learning (WBL) opportunities for *all* pathway students.
- The district and its industry partners establish and/or adapt desired student outcomes for the WBL component, flexible WBL options for achieving those outcomes, quality criteria for each type of WBL experience, processes for monitoring and evaluating WBL quality based on the criteria, and sample strategies for connecting WBL to classroom instruction.
- The district's policies support WBL and address related liability, access, supervision, and transportation issues.

D2.4 Balanced Assessment and Accountability

- The school board, superintendent, and other district and site leaders support a balanced system of assessment and accountability for student achievement that incorporates standardized state tests and performance-based assessments that allow students to demonstrate their progress toward meeting the district's outcomes described in its Graduate Profile. District curriculum leaders and teachers have adopted and/or adapted common rubrics to ensure that teachers are calibrated in their assessment of student performance levels across schools and pathways.

D2.5 Schedules to Support Pathway Quality

- District and site leaders establish policies and procedures that support master schedule development in order to set priorities for the unique needs of pathways. The master schedule ensures regular **common planning time** for pathway teams of teachers or grade-level pathway teams, “blocking” of courses with integrated curriculum, **cohort scheduling** for pathway students, and other accommodations that address unique pathway circumstances and needs.
- District leaders and high school principals have explored **creative scheduling options** and either approved schedules or permitted schools to adopt schedules that are flexible and accommodate the needs of pathways and their respective programs of study. In doing so, they consult with union leaders and establish agreements that support alternative scheduling options.
- District and site leaders provide active support for the **flexible use of instructional time** to accommodate the unique needs of pathways. For example, they may offer high school classes, college courses (through dual enrollment), or work-based learning opportunities either before or after school, in the evening, or on weekends. Also, flexible scheduling actively promotes ways to align after-school programs, online coursework, extra- and co-curricular activities, and summer programs with pathway programs of study.

D3

Student Equity, Access, and Choice

District leaders set the expectation that available pathways, by design, will appeal to, engage, and successfully serve any student regardless of his or her prior academic achievement, language proficiency, or postsecondary aspirations. No matter what pathway areas of focus and delivery models have been established, students in the district have equal access to any pathway *based on interest alone*.

District leaders expect middle grade administrators and teachers to support students in making an informed pathway choice at the end of their 8th-grade year by assuring that students have been exposed to career opportunities in a variety of industry sectors and know their high school pathway options. As important, students are academically prepared to succeed in rigorous pathway programs of study and are assisted in making the transition from middle school to high school pathways.

D3.1 Practices That Promote Equity and Rigor

- District leaders and high school principals have honestly assessed the degree to which existing pathways vary in quality; are proportionally representative of student gender, ethnicity, and geography; and may explicitly or implicitly support or impede equitable student participation. This includes the participation of students with disabilities and English learners.
- District leaders, high school principals, and pathway lead teachers co-construct and agree upon a **set of district expectations** to which all principals and pathways will be held accountable. By adhering to these districtwide expectations, existing pathways eliminate any practices that sort and track high school students in ways that limit their options after high school. As such, pathways foster success for every student.
 - For example, district leaders may expect all pathway programs of study to include college preparatory, honors, and Advanced Placement courses to assure common levels of rigor for each and every pathway.
- District administrators and high school principals have established data-driven mechanisms to monitor issues of pathway equity and access and use those data to make improvements, as necessary.

D3.2 Policies That Ensure Access and Choice

- The school board and superintendent have established policies and procedures that support school choice as well as other related issues, including transportation and access to equitable work-based learning opportunities.
- The school board and superintendent have established policies and practices to ensure that all student populations, including English language learners, special education students, GATE students, and others have equitable access to and are served well by pathways.

D3.3 Student Recruitment and Pathway Selection

- District leaders have established a set of strategies for **marketing all pathway options to middle school students** and their families. At a minimum, the strategies provide ample information about pathway options, including, but not limited to, associated school sites, program size and staff, programs of study, intended student outcomes, academic expectations, sample projects, related career opportunities, and postsecondary articulation and options. To increase the interest of students and families who may think pathways are not for them, district and school leaders develop and implement outreach strategies emphasizing the potential value that pathways have for every student.
- District and pathway leaders collaborate to devise ways for middle school students to “experience” a pathway during the summer, an intersession, or through a middle school pre-pathway program.
- The district has established equitable, randomized procedures to ensure that most, if not all, students can enroll in their first or second choice of pathways.
- The district has devised procedures that allow students to **change pathways** at least once if they discover that their initial selection is not a good match.

D3.4 K-8 Career Exploration

- District leaders, along with counselors and community partners, have developed a coordinated, sequenced series of **career exploration activities** that may include career speakers, worksite visits, job shadows, videos, informational interviews, and career investigations. To the degree possible, the district integrates career exploration activities into a standards-based curriculum or an advisory period, rather than treating them as an “add-on.”

- Through the use of portfolios, multi-year **college and career success plans**, or some other appropriate tool, district leaders and middle school administrators and teachers expect students to reflect upon and synthesize results of career exploration activities, as well as those of formalized interest and career assessments, to inform the pathway selection process and students' postsecondary plans.

D3.5 Academic Preparation in Middle School

- District leaders establish structures to promote **collaboration among middle and high school teachers** to ensure that middle school students are academically ready to enter high school pathways. Ideally, readiness includes more than grade-level proficiency in math and English language arts. Students will also engage in single- and multi-disciplinary project-based learning that results in foundational development of the 21st century skills identified in the district's Graduate Profile.
- District curriculum leaders help middle school teachers to identify and/or create an **academic support curriculum** that is applied and project-based and that extends beyond the regular school day and year, as needed, to ensure that all students are ready for pathway success.

D4

Sustained Partnerships

Linked Learning is not solely a strategy for transforming high schools and the student experience; it is also a strategy for preparing the future workforce, expanding the regional economy, and improving conditions for those who live in the region. Students graduating from pathways should enjoy a seamless transition to postsecondary education and training options. These transitions are facilitated by strong, active partnerships with local postsecondary institutions and also by leveraging the support of employers and civic and community leaders in establishing and sustaining Linked Learning pathways. Through such partnerships, communities can develop a qualified, diverse workforce and affect broader social and economic indicators.

This shift requires a new vision for collaboration across institutions, a new belief in shared responsibility, and a new willingness to make the boundaries between school and community porous. Leaders must recognize, from the beginning, the

discomfort that this shift may cause and the natural frictions among institutions that have significantly different priorities and cultural norms.

D4.1 Postsecondary Partnerships

- The superintendent has formed partnerships with leaders from local postsecondary institutions and has worked to outline a plan to support successful transitions.
- The superintendent and district leaders have reviewed historical data about student transitions, provided by the local colleges, and use those data to inform the development of **formal agreements** with those institutions. Such agreements focus on removing barriers and may include creating data-sharing agreements; offering priority registration for graduates; and exploring alternative placement test options, such as GPA.

D4.2 Student Support Services

- District leaders and college outreach representatives collaborate to ensure that, early in their high school years, all **students are aware of postsecondary options** and associated enrollment processes.
- The district has **assigned a counselor** and/or student support services professional to assist students in applying to community colleges and 4-year universities and in completing through their matriculation. The latter involves helping students with admissions, financial aid, enrollment, placement, registration, and orientation.
- The district has developed a joint plan with local colleges to minimize the number of students needing remedial or developmental education courses upon matriculation.

D4.3 Concurrent Enrollment Options

- The district, in coordination with a local occupational training provider, has analyzed its capacity to offer **advanced pathway coursework**. To round out pathway course offerings with advanced courses, leaders of the school district and occupational program have formalized arrangements with local community colleges (and potentially 4-year universities and other postsecondary institutions) for students to take advantage of dual enrollment/credit options.

- In doing so, district and college leaders have paid attention to systemically supporting student access by addressing transportation needs, the registration process, fees, student support, and other considerations.

D4.4 Master Plan for Sustainable Workforce Competitiveness

- Business and civic leaders facilitate a process to create or update a master **plan for sustainable workforce competitiveness** and community prosperity built on education transformation. Business and civic leaders support and sustain the master plan.
- Through their involvement on the broad-based coalition (see A.3. above) and pathway advisory boards, **employers are actively engaged** in guiding and supporting Linked Learning pathways and ensuring that they address skilled workforce priorities.
- Through their participation on the broad-based coalition (see A.3. above), stakeholders hold themselves **mutually accountable** for implementation of the master plan and growth on a set of educational, economic, and social indicators.

D4.5 Community Engagement

- As part of the district's Linked Learning communications plan, district leaders partner with community-based, faith-based, and/or other organizations to develop a **family and student engagement strategy** that involves and engages families and students as consumers, advocates, decision makers, and partners. This strategy may include training family members and students as spokespersons to build awareness about Linked Learning in their homes, schools, and communities; having them serve as representatives on pathway, district, and community (i.e., broad-based coalition) leadership teams to help hold individuals and institutions accountable for delivering high-quality educational opportunities; and seeking input to ensure that pathways are equitable, accessible, and rigorous.

D5

Operational Alignment

Throughout all facets of district operations, leaders align policies, practices, and resources to support pathway development and quality. In particular, Human Resource policies and practices support the unique instructional and leadership needs of pathways. To accomplish this objective, districts may need to renegotiate union agreements, implement waiver processes, consider practices related to reassigning and/or “bumping” teachers, modify evaluation processes, articulate pathway staffing needs and expectations to university pre-service programs, establish internal leadership development programs, and pay attention to changing professional development needs.

In addition, district facilities accommodate the teaching and learning needs of pathway programs of study. To accomplish this objective, districts may need to reconfigure or reassign existing space, plan for expansion, and/or consider sharing facilities with other educational or community organizations. Similarly, equipment is made available to accommodate pathway teaching and learning needs.

Pathways may have start-up costs (and sometimes ongoing costs) above and beyond those of traditional high school education programs. District finance procedures assure the regular evaluation of pathway funding needs and put plans into place to support those needs as part of the overall implementation plan.

D5.1 Recruitment and Hiring Practices

- The district’s human resources (HR) director has adjusted the district’s recruitment and hiring practices so that they **address the unique knowledge and skills required** for teachers, teacher leaders, counselors, and administrators working in pathway settings. These adjustments may include revised job descriptions/postings, interview questions, and selection criteria. District hiring practices include pathway team members in the recruitment and selection of new team members.
- District HR staff and site principals have considered their future staffing needs and have communicated anticipated needs to local teacher preparation institutions, while articulating the unique skills of pathway teachers. The district collaborates with these institutions to **strategically place pre-service interns and student teachers** in Linked Learning pathways.

- District leaders identify, recruit, select and hire site administrators based on their ability to serve as instructional leaders for pathway teachers who collaborate across disciplines to integrate curriculum, use project- and problem-based learning, connect with work-based learning, and utilize authentic assessment methods. Potential administrators also value and support the structural supports necessary for pathway quality (e.g., substantial teacher professional development, master scheduling that includes common planning time for teachers and cohort scheduling for students, and alignment of support services, etc.).

D5.2 Evaluating Teachers and Administrators

- District leaders work with the teachers' union to assure that the unique qualifications and abilities identified above are reflected in teacher support processes and evaluations.
- District leaders incorporate into site administrator support, supervision, and evaluation the specific qualifications and capabilities identified above, as well as their understanding of and support for high-quality pathway implementation, effective instruction, ability to nurture distributed leadership, and capacity to establish systems that will ensure pathway sustainability.

D5.3 Retaining Qualified Pathway Teachers

- District leaders work with the teachers' union to identify and pursue strategies to **maintain effective cross-disciplinary teams** of pathway teachers. This work may include reconsidering seniority provisions and instituting provisions to retain uniquely qualified pathway teachers.
- District leaders align teacher support programs, such as the teacher induction program, peer assistance and review, and professional learning communities (PLCs), with pathway teacher retention and professional development needs.

D5.4 Facilities and Equipment

- The district's facilities director and/or site leaders consult with teachers, their local business and industry partners, pathway team leaders, and site administrators to determine the facility and equipment needs for current and future pathways.
- The district's facilities director integrates the special facility and equipment needs of pathways into its **short- and long-term facilities planning** processes.

- District and school site leaders utilize **creative facility use options**, such as sharing facilities at a nearby college or joint apprenticeship center.

D5.5 Leveraging Existing and Developing New Resources

- The district's chief financial officer identifies ways in which existing state and federal funding resources, including regional career and technical education resources, may directly contribute to the formation and support of Linked Learning. These resources include funding for career academies, career and technical education, afterschool programs, and facilities and equipment, among others.
- The district's chief financial officer identifies ways to **reallocate and/or repurpose local, state, and federal funding** to support elements of pathway programs of study. These elements include the district's general purpose funds and resources specifically designated for professional development, school improvement, special education, school counselors, and others.
- District and school site leaders exercise flexibility whenever possible in their use of all funding in order to **combine and align resources** to support pathways.
- District leaders dedicate staff and resources to **identify potential new funding sources** and lead development efforts that are consistent with and may be used to support pathway expansion, quality, sustainability, and access for all students.

D6.6 Sustained Fiscal Stability

- The district's chief financial officer fully integrates pathway needs into **short- and long-term budgeting and funding processes** and develops systems to effectively manage existing and new resources for sustained fiscal stability and the continuous improvement of pathways. The district explicitly integrates pathway strategies into official reporting on budget decisions for accountability purposes.

Associated Tools

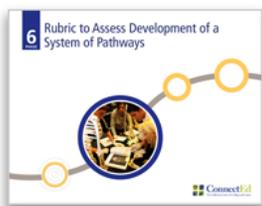
The Framework serves as both the knowledge base and organizational structure for a full set of ConnectEd-developed tools that support the planning, implementation, and continuous improvement process. Some of those tools are described below.



Needs and Capacity Assessment. This tool guides the process for conducting a comprehensive assessment of the current capacity and future needs related to the design, implementation, and sustainability of a system of Linked Learning pathways. It maps to Phase 2 of the *Leading High School Transformation A Guide for Developing a System of Linked Learning Pathways*.



Implementation Plan Template. This tool guides the process for conducting a gap analysis based on the results of the *Needs and Capacity Assessment* and for using that analysis to inform the development of a multi-year implementation plan to develop and/or expand quality pathways districtwide. It also maps to Phase 2 of the *Leading High School Transformation A Guide for Developing a System of Linked Learning Pathways*.



Rubric to Assess Development of a System of Pathways. This tool guides an annual assessment of a community's progress in implementing a system of pathways and a process for establishing goals for the coming year. It maps to Phase 6 of the *Leading High School Transformation A Guide for Developing a System of Linked Learning Pathways*.

Acknowledgments

This version of the Framework is the third iteration of a document that was developed originally in 2007 to guide ConnectEd coaches and district leadership teams in the planning process for the California Linked Learning District Initiative. Since that time, all of us have learned a lot. Those lessons are reflected in this version of the *Framework for Developing a System of Linked Learning Pathways*.

This publication was written by Roman Stearns, Director for Leadership Development. It is informed by numerous sources, including the following:

- Researchers from SRI International who, in their evaluation of the California Linked Learning District Initiative, have interviewed thousands of individuals and gathered numerous other sources of data to inform what they consider to be “non-negotiable” features of a Linked Learning system;
- Research reports by several other research organizations, including UCLA’s Institute for Democracy Education and Access (IDEA), the Education Trust – West (ETW), and the Stanford Center for Opportunity Policy in Education (SCOPE);
- The Essential Practices developed by Ford Motor Company Fund’s Next Generation Learning, as well as key lessons learned from other Linked Learning field partners—Alliance for a Better Community (ABC), Career Ladders Project (CLP), and others; and, of course
- The deep field experience of district leaders in California school districts (Antioch, Long Beach, Los Angeles, Montebello, Oakland, Pasadena, Porterville, Sacramento, and West Contra Costa) and the ConnectEd coaches who have worked by their side.

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Framework for Developing a System of Linked Learning Pathways

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