

Evaluation of the California Linked Learning District Initiative

Year-Two Report
Executive Summary

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Overview

The Linked Learning approach to high school education combines strong academics and real-world experience to help students build a strong foundation for success in college, careers and life. Two years into an initiative designed to embed and test this approach within nine California school districts, the evaluation findings reveal signs of progress, areas for improvement and promise for positive student outcomes. This analysis can inform effective implementation of Linked Learning at the district and school levels, and support expansion of this approach across California. It will be supplemented with continued evaluation of the initiative.

Since 2006, The James Irvine Foundation has made a significant investment in promoting Linked Learning as a promising approach to transforming California's high school system. (The Linked Learning approach was initially known as "Multiple Pathways.") Through Linked Learning, Irvine aims to improve high school graduation rates and increase successful transitions to a full range of postsecondary education and career opportunities, particularly for low-income and disadvantaged youth.

Linked Learning is designed to engage students in challenging and relevant academic and technical coursework connected to real-world experiences through a multiyear program of study linked to a career or industry theme. Specifically, the Linked Learning approach combines a rigorous academic core curriculum that satisfies entrance requirements for California's public university system, a strong sequence of career-technical coursework, a range of work-based learning experiences, and academic and social supports with the goal of giving all students access to and success in a pathway program of study of their choosing.

Core Components of Linked Learning

Challenging academics — A core academic component of college-preparatory instruction in essential subjects, including English, math, science, social studies, foreign language and visual and performing arts.

Technical skills and knowledge — A demanding technical component, emphasizing the practical application of academic learning and preparing youth for high-skill, high-wage employment.

Work-based learning — A work-based learning component that offers opportunities to learn through real-world experiences, such as internships, apprenticeships and school-based enterprises.

Support services — Supplemental services, such as counseling and additional instruction in reading, writing and mathematics.

About the Linked Learning District Initiative

Linked Learning builds on more than four decades of experience with career academies and California Partnership Academies, many of which provide students with integrated academic and technical content. In most cases, these pathways and academies have been operating in isolation without systemic support or structures. Through the California Linked Learning District Initiative, The James Irvine Foundation is supporting nine demonstration districts across California to develop systems of pathways that are widely available to all high school students.

The initiative seeks to demonstrate the impact that Linked Learning can have on students, especially low-income youth. Specifically, the initiative seeks to offer these students full access to a range of pathways options, with expectations that improved academic performance and high school graduation and college attendance rates will result. Further, the initiative serves as a vehicle for the Foundation and its various partners to develop and refine the Linked Learning approach, to determine what makes Linked Learning successful at a systemic level and to demonstrate the viability of Linked Learning as a comprehensive approach for high school reform.

Initiative Participants

Collectively, the nine districts participating in the Linked Learning District Initiative serve more than 115,000 high school students, or nearly 6 percent of California's 2 million high school students. They represent a variety of geographies and population sizes. The students in these districts are predominantly non-white and socioeconomically disadvantaged.

School Districts

- Cohort 1** (*began 2009*)
- Antioch Unified School District
 - Long Beach Unified School District
 - Pasadena Unified School District
 - Porterville Unified School District
 - Sacramento City Unified School District
 - West Contra Costa Unified School District
- Cohort 2** (*began 2010*)
- Local District 4 of the Los Angeles Unified School District
 - Montebello Unified School District
 - Oakland Unified School District

ConnectEd: The California Center for College and Careers, established by The James Irvine Foundation in 2006, is the primary intermediary and technical assistance provider and maintains strong relationships with each district.

The Los Angeles Small Schools Center is taking on aspects of ConnectEd's role with participating districts in southern California.

The Stanford Center for Opportunity Policy in Education (SCOPE) partners with ConnectEd to offer a district and a pathway leadership series, which involves annual summer institutes and leadership sessions through the school year.

Analyzing Results

In comparing 2010–11 findings to the findings from the first-year implementation evaluation, the second-year themes are indeed a continuation, extension and consolidation of the implementation work initiated in 2009–10. The progress is encouraging and suggests a stability of purpose and commitment to the Linked Learning approach among all the stakeholders in the initiative.

In areas that received additional attention this past year (e.g., leadership, communication and student access to pathways), there has been progress. Where emphasis has been steady throughout the implementation of the initiative, progress has remained steady as well. For example, pathway teachers continue to develop integrated curricula and receive support and professional development around curriculum.

At the same time, there is more to be done within the initiative's continuous improvement framework. Not all districts are progressing equally, and it is not surprising that districts struggle to make improvement in all aspects of Linked Learning in any given year.

Most importantly, it is apparent that all nine districts are on their way toward the goal of developing systems to support and sustain pathways.

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Key Findings

Two years in, the Linked Learning District Initiative has gained momentum among key stakeholders. During a period of economic crisis and drastic budget cuts, all participating districts are choosing to continue resourcing implementation of this approach. The following points illustrate progress as well as areas for attention.

- **Leaders are invested in this reform.** Linked Learning has become the central philosophy for high school reform in participating districts. Educational and, to some extent, governmental decision makers have internalized this approach, are articulating its value to others and are investing in its success. They are building the structures and systems needed to carry this approach forward, and all have sustained or increased the staff time and capabilities needed for successful implementation. Plus, they are facing challenges associated with the important work of nurturing broad-based coalitions to sustain this work.
- **Students are engaged and hopeful.** Districts have engaged families and students in Linked Learning, and participants have high expectations for the program and themselves. Ninety percent of students believe their high school experience will prepare them for college and 77 percent believe it will help them master skills needed for 21st-century careers. Students appreciate the specialized knowledge and depth of hands-on engagement available through Linked Learning and feel that the experience broadens their horizons for the future.

- **Schools are adopting the curricula.** Participating schools are steadily adopting Linked Learning curricula that integrate rigorous academics and technical education in alignment with state standards. They are doing so with support from external coaches and technical assistance providers introduced by the initiative and district staff.
- **Instruction remains largely teacher-centered.** Although Linked Learning aspires to student-centered classrooms that involve hands-on learning and high levels of student responsibility, most sites struggle to move past traditional instruction models featuring lectures and question-and-answer sessions.
- **Work-based learning is limited.** Participating districts are finding it difficult to provide all students with meaningful work-based learning experiences connected to the academic and technical core. This major component of Linked Learning has been addressed by ad hoc arrangements that, to date, do not build on one another and are not closely integrated with classroom instruction.
- **Barriers to student participation persist.** Many of the tailored supports Linked Learning aims to provide to reduce student barriers to participation remain underdeveloped and much the same as conventional supports.

This paper further reports on successes to date as well as improvement opportunities in the nine Linked Learning districts.

Evaluating Linked Learning Progress

In 2009, The James Irvine Foundation commissioned the Center for Education Policy at SRI to conduct a rigorous, multiyear evaluation of the Linked Learning District Initiative. During the first and second years of the initiative, the evaluation team focused on documenting early implementation of the systems of Linked Learning pathways in the nine participating districts. By design, the evaluation is delaying examination of student outcomes until implementation is well underway and students have experienced multiple years of their pathway programs.

Second-Year Evaluation Process

This executive summary highlights the key findings presented in the second-year evaluation report prepared for the Irvine Foundation in late summer 2011.

The second-year findings are based on data collection and analyses conducted during the 2010–11 school year and focus on implementation of the initiative in the nine districts now funded to do so via a system of Linked Learning pathways. This year's evaluation activities included:

1. Telephone interviews with key district staff and ConnectEd coaches. In total, the evaluation team conducted 70 telephone interviews in fall 2010.
2. A baseline survey administered to more than 2,300 students in the initial year of a pathway (i.e., in ninth or 10th grade) in the six Cohort 1 districts and to a set of 1,300 comparison students in the same districts who were not enrolled in a pathway.¹
3. Site visits to each district that included interviews with key district personnel and staff and students from selected schools and pathways.² In total, the evaluation team conducted 287 interviews and student focus groups across the nine districts during spring 2011.
4. Materials and observation notes from professional development events sponsored by ConnectEd and its partners throughout the year.

¹ Across the six Cohort 1 districts the evaluation team achieved an overall response rate of 86 percent on the baseline student survey.

² The evaluation team visited 24 pathways identified by districts in winter 2010 for early certification. ConnectEd has developed criteria and a process for pathway certification to serve as a road map to help pathway teams work together to improve their comprehensive programs of study. The evaluation team also visited 11 pathways not initially identified for certification by districts. In addition to the site visits in spring 2011, researchers conducted telephone interviews with ConnectEd's district and pathway coaches assigned to each site, as well as with school board members and teacher union representatives.

Evaluation on the Horizon

The evaluation of the Linked Learning District Initiative is expanding through collection and analysis of student-level data during the 2011–12 school year. The evaluation will continue through the end of the 2013–14 school year, and will focus on these questions:

- What structures, policies, and supports facilitate the implementation and institutionalization of a districtwide system of high-quality pathways, and what challenges do districts face in implementing such systems?
- How do districts support the implementation of pathways, and what challenges do pathways face in implementation?
- What are the educational experiences and perceptions of students participating in pathways?
- What are the academic outcomes (i.e., standard academic performance results) and post-high school outcomes for students participating in pathways?

Evaluation of the District Initiative will shed light on the efficacy of Linked Learning as an approach to better preparing students to succeed in college, careers and life.

This evaluation and its findings will also inform future Irvine-funded research projects that illuminate the degree to which Linked Learning is achieving its goal of preparing students for success in college, careers and life.

Leadership for Sustaining Linked Learning

A central objective of the initiative is for district and school leaders to develop a shared vision of Linked Learning as the primary strategy for transforming secondary education. In the first year of the initiative (2009–10), district leadership teams, in most cases, came together and arrived at a strong shared understanding of the Linked Learning approach. During the second year, districts made significant progress in increasing the level of commitment and involvement of district leaders. Districts also made significant progress in communicating the Linked Learning vision to, and gaining support from, various stakeholder groups. Linked Learning became more central to district high school reform efforts than in the previous school year, due in part to more active support by top district administrators, a better understanding of how Linked Learning can drive multiple reform agendas, improved district capacity to support the development of a system of pathways, and significant communication and outreach efforts.

Key Local Policy Figures Are Embracing Linked Learning as a Vehicle for Reform

All nine district superintendents from Cohort 1 and Cohort 2 districts now view Linked Learning either as their primary strategy for reforming high schools or as aligned with their larger visions of district reform.

ConnectEd's Framework for Developing a System of Linked Learning Pathways (2011) identifies leadership as a critical element. The leaders of a district and its schools must be committed to a shared vision, dedicating and aligning the necessary resources to put the vision into place. Moreover, the extent to which these leaders understand the goals of Linked Learning and perceive how integral the goals are to their own approach to reform is a strong indicator of their readiness to support Linked Learning implementation. During the first two years of implementation, superintendents and other leaders from the nine districts solidified their understanding of the Linked Learning vision and goals.

In addition, school board members in four districts are quite active in advocating for the Linked Learning approach in their communities. Mayors and representatives of other civic groups also have become more engaged in the Linked Learning effort in several districts.

Broad-Based Coalitions Are Integral and Require Attention

All districts except one are experiencing difficulties in developing an active broad-based coalition with high-level membership.

Beyond general civic engagement in Linked Learning, ConnectEd has encouraged districts to develop broad-based coalitions and engage them in the work of developing systems of Linked Learning pathways, from connecting students to work-based learning experiences to advocating for rigorous academic and technical programs of study for all students. A strong and active

broad-based coalition also can help maintain the vision of Linked Learning when districts are undergoing personnel changes. While districts have been able to garner generalized support from stakeholder groups, development of broad-based coalitions remains a challenge.

The evaluation team found evidence that various community stakeholder groups were more conversant with Linked Learning in the second year of implementation, but this aspect of the initiative needs improvement. Districts need additional guidance in refining the purpose and structure of broad-based coalitions to develop and maintain broad, long-term community support for Linked Learning.

Districts Are Building Capacity to Support Linked Learning

Eight districts added staff or increased staff time to develop work-based learning opportunities for pathways. Five districts hired internal coaches, and two others indicated an intention to do so by the third year of the initiative.

In 2009–10, districts took steps to increase the capacity of their district staff to ensure high-quality implementation of all aspects of Linked Learning. In 2010–11, districts added staff to support implementation, usually with Linked Learning grant funds from The James Irvine Foundation. Typically, districts are adding Linked Learning staff to support professional development for curriculum-related activities (e.g., creation of integrated projects) or to advance the work-based learning component. They are also frequently increasing the proportion of time that staff are assigned to Linked Learning activities or adding an internal pathway coach.

Though increased district leadership capacity for Linked Learning is a positive development, districts also continue to cope with issues that can have both positive and negative influence on implementation of a system of pathways. For example, district staff reductions because of budget shortages leave many district offices understaffed. With fewer staff, Linked Learning directors and their teams must wear multiple hats and risk becoming overextended. On the other hand, added responsibilities for Linked Learning staff can lead to increased coordination of Linked Learning with other high school improvement efforts in a district.

In building leadership capacity for Linked Learning, districts need to examine existing organizational structures and operational norms that can hinder implementation. Usually these barriers are particular to a specific district culture and therefore not generalizable to the initiative overall. Often, it takes time to identify these types of barriers. Within this initiative, identified structural problems include Linked Learning leadership teams that lack authority or political clout, as well as communication and coordination challenges across levels of the district hierarchy.

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External observers of the implementation process can be helpful to Linked Learning leaders in spotting and addressing barriers created by organizational lines of authority, decision making and communication. These observers include ConnectEd district coaches, the evaluation team, SCOPE and other partners in the initiative.

Leaders Are Tailoring Communication of Linked Learning for Multiple Audiences

Linked Learning leaders are aware that they must “sell” the Linked Learning vision to a variety of audiences, from district and school staff to students, families and the community at large. As a result, they have developed multiple messaging strategies to reach these audiences.

For the first year of the initiative (2009–10), the evaluation found that communication among core team members was strong, but good communication with school-level staff and with other stakeholder groups had been inconsistent in a majority of districts. In 2010–11, all of the Linked Learning districts in general, and the six Cohort 1 districts in particular, focused on improving their messaging and communications. District goals for improved communication varied. Some districts worked on taking true understanding of the Linked Learning approach deeper into the district office and high schools. Others looked outward to create better branding of Linked Learning in the community, especially for student recruiting purposes.

Districts need to continue their emphasis on clear communication about the Linked Learning approach conveying its unique character and strong potential to both internal and external stakeholders.

Despite extensive communication and messaging campaigns, districts need to continue their emphasis on clear communication about the Linked Learning approach. While Linked Learning advocates the importance of preparing students for both college *and* career, this message can get muddled by the longstanding dichotomy of high school as preparation for college *or* career, especially in districts with histories of tracking low-income students and students of color in one direction.

School-Level Implementation of the Linked Learning Approach

Second-year evaluation findings suggest that school and pathway staff involved with the initiative have greater understanding and clarity about the core components of Linked Learning than last year. However, many principals and school staff not directly involved with pathways still do not know much about Linked Learning. The evaluation team sees promise in nascent efforts to provide principals more targeted support and guidance with regard to their role in the initiative.

Meanwhile, the important work of developing integrated, project-based curricula has continued. District staff, ConnectEd and other technical assistance providers are supplying coaching and professional development services for pathway teams. Nevertheless, questions remain about the quality and rigor of the curricula, the alignment of the instructional practice with the Linked Learning principles, and the ability of districts to provide meaningful work-based learning opportunities for all students that are explicitly and purposefully connected to the academic and technical core.

Leadership Training Aims to Improve Involvement by Key School Personnel

Involving school leaders in pathway implementation has been challenging. The initiative is addressing this issue through targeted training and coaching.

The systems of Linked Learning pathways that districts employ develop under varied structural conditions ranging from autonomous, themed, stand-alone small high schools to large comprehensive high schools with one or two pathways that serve a small fraction of the school's total enrollment. Leaders of themed, small high schools tend to have greater understanding of and involvement with Linked Learning than do principals and other administrators of comprehensive high schools. In the context of the initiative, a small high school generally implements a single pathway, so the school by definition has bought in to the initiative's goals. In comprehensive high schools, leaders may be overseeing multiple reform initiatives, and a pathway or two can serve only a fraction of their total student body.

Lack of school leadership support can be problematic for Linked Learning implementation when administrators do not create organizational structures that facilitate pathway development or when, in some instances, they actively create road blocks to implementation. Recognizing the importance of school principals to pathway implementation, Irvine has funded the University of San Diego to provide principal leadership training, including summer institutes and one-on-one coaching, for up to three principals per participating district.

While high school principals are certainly key participants in the development of a district system of pathways, other school-level staff frequently play important roles. For example, assistant principals may oversee individual pathways within a comprehensive high school, and guidance counselors may be assigned to work with all the students in a particular pathway. Obviously, teachers working in pathways need to be clear about the initiative's goals, and evidence suggests that it is helpful when all teachers in a school are at least conversant about what Linked Learning stands for and how the approach aligns with a district's overall high school reform vision. Districts have made progress in broadening and deepening their messaging at the school level and should continue to do so as every year new staff will be brought on and will need induction into the Linked Learning approach.

Linked Learning Curricula Call for Shifts in Instructional Style

Significant effort has gone into curriculum development. Moving forward, pathway teachers will need ongoing, high-quality professional development and coaching to support shifts in instructional practice toward a more student-centered approach.

The first-year report on this initiative noted that pathway teams made considerable progress in the development of pathway curricula that integrate content across disciplines and provide students with authentic, project-based experiences. The report also indicated a need for supports teachers require, such as time and assistance, to develop integrated curricula and implement a project-based approach while maintaining alignment with state standards. The six Cohort 1 districts were in the early stages of systematically supporting curriculum integration in their pathway programs. During the second year of the initiative, pathway teams in the nine districts continued to work on developing their own courses of study and integrated projects, or they worked to adopt or adapt curricula developed by others with support from ConnectEd, pathway coaches, other external technical assistance providers and district staff. These pathway teams received substantial professional development during the summer and school year, in addition to coaching and collaboration time.

Lack of funds in 2010–11 limited progress on the development of programs of study and curricula. For example, layoffs caused teacher turnover in pathway teams, and pathway students and nonpathway students were mixed in some cases as class sizes increased. Combining pathway and non-pathway students detracts from the ability for pathway participants to become a supportive and focused learning cohort. Pathway teachers also face rising pressures to pare back hard-won collaboration time with their pathway teams. Using this time efficiently will be increasingly important in year three of implementation as the initiative turns its attention to assessment of student learning and greater use of data at the pathway, school and district levels. Technical assistance and coaching can be useful tools to ensure the productive use of collaboration time.

To date, the initiative reflects a heavy emphasis on curriculum matters, with far less attention given to instruction. Curricular focus on integrated subject matter and hands-on learning through projects has important implications for how students and teachers should interact in the classroom going forward. In theory, instruction should include a much greater mix of student-centered and teacher-centered strategies, but few pathway teachers currently have this range in their instructional repertoire, spelling opportunity for added skill development.

Districts Need Guidance on Effective Work-Based Learning

Pathways have made limited progress in developing work-based learning opportunities; district, school and pathway staff expressed an ongoing need for greater support in this area.

In addition to the academic and technical core, work-based learning is the third major component of the Linked Learning approach. With a shift in focus to student outcomes, ConnectEd is beginning to engage district and pathway staff in conversations about how to expand notions of work-based learning and to better align work-based learning opportunities with integrated curriculum and desired student outcomes.

Students feel that work-based learning experiences give them broad exposure to different careers, opportunities to become familiar with workplace contexts and culture, and insight into the personal attributes needed for success in particular workplaces. However, current pathways have made limited progress in developing work-based learning opportunities. Many of the experiences that do exist are ad hoc, do not build on one another and are not integrated closely with classroom instruction.

Each district has unique circumstances to resolve as it moves toward a full-fledged work-based learning system as part of Linked Learning. Sometimes, there is tension between building a district system to support work-based learning and schools' desires to move quickly to secure opportunities for students or to maintain their own long-established relationships with industry.

In instances where pathways have established their own advisory boards, they view district efforts around building a broad-based coalition, which can be helpful to work-based learning, as encroaching on pathway advisory board membership. Elsewhere, pathway staff welcome district support in developing an advisory board.

In the end, districts and pathway staff will need to find the best balance of centralized versus decentralized approaches to offering students a series of robust and coherent work-based learning experiences. Coaches and other technical assistance providers should ensure that work on academic and technical curriculum, and on student learning outcomes, consistently emphasize developing a continuum of work-based learning experiences.

“We’re going to have to do this next year in the real world and [we’re] doing it for real here, like a trial version of it. It really helps. I feel more comfortable going out into reality and being able to do what I want to do.”
— Pathway Student

The Student Experience of Linked Learning

Overall, the student experience with pathways is positive. Although the details of the pathway choice process differ greatly from district to district, important student expectations and learning experiences within a pathway are largely shared across all nine districts. Second-year evaluation findings suggest that students in pathways have high expectations that their high school experience will prepare them for college and help them master 21st-century career readiness skills.

At the same time, students continue to experience some important barriers to fully accessing Linked Learning pathways. Districts have made little progress in implementing systematic student support systems, which would include counseling and flexible yet rigorous programs of study that facilitate greater access to Linked Learning pathways for all students, including English learners, special education students and students performing below grade level.

Degree of Student Choice Varies; Student Expectations Are High

All nine districts made progress in expanding pathway options for students. This element of choice is foundational to Linked Learning's aspiration of advancing equity in education. Students have different experiences in selecting pathways due to basic differences in the features of their schools and pathway choice processes.

One of the central goals of the Linked Learning District Initiative is to expand the number of career-themed pathways accessible to all students in participating districts. There are basic differences within, as well as across, districts in the ways that students experience the process of learning about and choosing to join a pathway. These differences include the timing of when a student can choose a school and a pathway, the range and variety of pathway and school options that are available, and the ways in which students apply for and are placed into pathways. Despite variations in the pathway choice process, students across all districts in the initiative expressed similar reasons for choosing to join a pathway and have expectations for their high school experience that are consistent with Linked Learning's integrated academic and technical program of study.

Findings from this study's baseline survey indicate that pathway students, more than other students, count school safety, a strong academic reputation and a special theme or focus as important reasons for attending a school. In addition, students' choice of a particular pathway is guided by individual career interests, the example of role models or older peers, and a desire to be in classes with "like-minded" students. Overall, 71 percent of students in pathways in the six Cohort 1 districts surveyed reported that the pathway they were in was related to their career of choice.

Districts need to improve communication to students about the core components of the Linked Learning approach. First-year pathway students have relatively low levels of awareness that a Linked Learning pathway includes technical coursework and work-based learning. Just one-third of the first-year pathway students surveyed expected to participate in a technical program, and just over half (51 percent) expected to participate in work-based learning during high school.

Nevertheless, pathway students have higher expectations about what they will learn in high school than their peers who are not in pathways: More pathway than comparison students expect their high school experience to prepare them for college (90 percent versus 87 percent) and help them master 21st-century career readiness skills (77 percent versus 73 percent).³

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Students Feel Prepared by Their Pathway

Students feel their pathways are preparing them for their future, regardless of what they choose as a career.

Students in Linked Learning pathways appear to appreciate and benefit from the integration of academic and career-technical learning in coursework, work-based learning and other pathway-related learning opportunities. In focus groups, pathway students frequently spoke of the learning opportunities that come from being part of a group (including teachers and students) that is diverse and at the same time united by a common set of interests, goals and aspirations related to a pathway theme. Many mentioned the opportunity to gain specialized knowledge and skills associated with particular industries, while others appreciated the opportunity to learn to use advanced tools and technologies associated with particular career interests. Students also expressed appreciation for the depth of learning and hands-on engagement made possible through involvement in integrated projects. They observed that work-based learning experiences had given them broad exposure to different careers, opportunities to become familiar with workplace contexts and culture, and insight into personal attributes needed for success in the workplace.

While some observers worry that high school programs with career themes narrow students' career options too early in life, students do not seem to view their Linked Learning pathway experience in this way. Rather, they appear to be conscious that their horizons are broadened as a result of their participation in pathways.

Students Need Additional Supports to Fully Participate in Linked Learning

Student supports that represent key components of the Linked Learning approach remain underdeveloped. These include flexible master scheduling, specialized college and career counseling, and systematic interventions to prevent course failure and credit loss.

Students say mostly positive things about their experience in a Linked Learning pathway, but even highly engaged students encountered barriers that limited their opportunities to learn while doing so. One specific barrier is course scheduling. In particular, small, stand-alone high schools find it challenging to offer a large number of elective courses, especially to advanced-level students. Smaller numbers of teachers and students necessarily limit the number of courses that these high schools can offer, leaving pathway students sometimes feeling constrained by the options they have in course selection.

³ Difference between pathway and comparison students is significant at the .05 level.

Pathway students also expressed some disappointment about limited opportunities to participate in advanced-level work-based learning, especially internships during the summer between 11th and 12th grade. Districts will need to be careful about setting student expectations for participating in real-world experiences as the numbers of pathways and participating students grow.

The first-year evaluation report noted that pathway students have scarce opportunities to receive formal college and career counseling. Budget cuts continue to pose a threat to maintaining adequate numbers of qualified counselors who can meet the academic and social needs of pathway students. For disadvantaged students in particular, the absence of strong guidance counseling may greatly reduce success in making the transition from high school to higher education. Student access to college and career guidance remains unchanged since the first year of the initiative, although students indicated that they were getting college and career advice informally from their pathway teachers.

Students' access to systematic academic support services also remains limited. However, informal supports, typically from pathway teachers, are available to most students. Districts have established programs to support academic remediation for all students in the district who need it, regardless of whether or not they are part of a pathway. While none of the districts have made progress in implementing supplemental academic support systems specifically tailored to the needs of students in pathways, some individual high schools have developed student support systems that can serve as a model. On the whole, levels of participation in pathways by students with special learning needs, such as English language learners, special education students and students performing below grade level remain low.

Some individual high schools have developed systems that can serve as a model for delivering student support services.

External Support and Pathway Certification

Linked Learning is a multifaceted approach designed to transform the high school experience for students. By introducing a systems approach to Linked Learning implementation, this initiative brings added complexity. Recognizing this, The James Irvine Foundation is supporting multiple partner organizations that provide the participating districts with various types of technical assistance.

ConnectEd: The California Center for College and Careers, established by Irvine in 2006, is the primary intermediary and technical assistance provider and maintains strong relationships with each district. ConnectEd makes and oversees the district implementation grants, provides coaches at the district and pathway levels to support implementation, and promotes the Linked Learning approach as a promising secondary school reform at the state and national levels. In collaboration with its Linked Learning partners (e.g., the Career Academy Support Network, the National Academy Foundation and the National Career Academy Coalition), ConnectEd has developed and implemented a tool and process to certify pathways that adhere to the Linked Learning principles. More recently, Irvine has begun to support the Los Angeles Small Schools Center, which is taking on aspects of ConnectEd's role with participating districts in southern California.

The Stanford Center for Opportunity Policy in Education (SCOPE) partners with ConnectEd to offer a district and a pathway leadership series that involves annual summer institutes and sessions through the school year.

At the end of the 2009–10 school year, ConnectEd began piloting the pathway certification tool and process. Certification criteria were created to help pathway teams improve their comprehensive programs of study.

District Coaching Is Strong; Pathway Coaching Is a Work-in-Progress

District coaches have been absolutely essential to implementation progress to date, while the pathway coach role is much more challenging and complicated by factors including the number of teams pathway coaches must support.

During the first year of the initiative (2009–10), coaches helped district and school staff develop a deeper understanding of the Linked Learning principles and core components. During 2010–11, ConnectEd continued to provide each district with a district coach and a pathway coach, employing a total of 14 coaches. In that second year of implementation, ConnectEd refined and extended the coaching model to emphasize issues that were increasingly important to the success of the initiative overall, such as ensuring that all participating students have access to high-quality pathways and building a collaborative culture among district and pathway teams. The move in 2010–11 to encourage districts to identify and support local, internal pathway coaches was an important step in preparing for the initiative's sustainability.

The role of the ConnectEd district coach is proving to be pivotal as districts move deeper into implementation. Coaches provide support that is tailored to the particular district context in which they work, while helping to maintain the focus on district systems. District staff in almost all of the nine sites value these coaches for their accessibility, knowledge and ability to facilitate discussions and push staff in their thinking about Linked Learning.

Unlike district coaches, whose work is focused on supporting district-level systems, the pathway coaches focus more on the details of Linked Learning through their work with pathway teams at school sites. Many ConnectEd pathway coaches also have been highly instrumental in moving pathway development toward certification. However, the role of the pathway coach appears to be more challenging and complicated than that of the district coach because of the number of pathway teams coaches must support, the limited time they have with pathway teams, and the lack of clarity on the part of district and school staff about the pathway coach role. Pathway coaches need a mixed skill set that is difficult for a single individual to possess. In the future, the role of external pathway coach might need to be differentiated or specialized.

Internal coaching represents a new opportunity to build district capacity to support and sustain pathway development beyond the grant period. ConnectEd has defined three major focus areas for internal coaches:

- Equity, which includes student supports
- Teaching and learning that support integrated curriculum and student-centered classrooms
- Performance assessment

By involving internal coaches in Linked Learning implementation, districts can offer more intensive support to pathway staff than the pathway coach can provide. However, the level of support internal coaches can make available to pathway staff could be easily threatened by other district responsibilities carried by these coaches.

The Pathway Certification Process Is Valued but the Purpose Needs Clarification

While district and pathway staff generally value the certification process, they remain unclear about the purpose of certification. Pathway staff view the certification process as both an opportunity for self-assessment and a burdensome task.

ConnectEd created pathway certification criteria to serve as a road map to help pathway teams as they work together and improve their comprehensive programs of study. The certification process has afforded these teams an opportunity for self-reflection on their pathways' development. Districts are using the process as a way to assess the quality of their pathways and monitor implementation progress. At the end of the 2009–10 school year, ConnectEd began piloting the pathway certification rubric and certification process. Certification teams visited 23 pathways, 20 that are a part of the District Initiative and three from the ConnectEd Network of Schools. Of the 20 in the initiative, 16 were certified as of August 2011, and four were “in progress” toward certification.

A good deal of the work undertaken by district and pathway coaches during the first two years of the initiative focused on helping participants meet the certification standards. By identifying high-quality pathways in this way, initiative staff seek to help a broader statewide and even national audience to understand the value of a high school education that emphasizes both rigorous academics and real-world applications that motivate students to persevere and excel.

For the most part, district, school and pathway staff view the certification process in a positive light. They accept the process as time-consuming, but they appreciate the opportunity for self-reflection and self-assessment. District leaders view the certification process as a means to hold pathways to high standards and ensure quality. At the same time, pathway staff remain unclear about the purpose of certification. It will be important for ConnectEd and its Linked Learning partners to continue to be transparent with the districts and pathways about lessons learned from the certification process.

The Linked Learning Leadership Series Is Useful for Participants but Affects Time in Classroom

District staff appreciate the time to work together as a team during the district leadership series, but pathway staff feel they are spending too much time out of the classroom.

SCOPE, which includes the School Redesign Network, has served as ConnectEd's primary partner to design and deliver sessions of the district leadership series for the first two years of implementation of the initiative. SCOPE works in close collaboration with ConnectEd on the annual summer institutes, residencies on selected topics during the school year and joint leadership professional development sessions with pathway teams. While district and school staff appreciate the technical assistance offered, they must create time for these activities while managing a multitude of other demands.

Districts in the initiative need to work on their own issues, such as improving student outcomes, while at the same time keeping pace with what they need to do to build capacity at the pathway level to meet ConnectEd's certification standards. Focus on pathway certification was an important first step in implementation, but certification tended to dominate the professional development and technical assistance offerings of both ConnectEd and SCOPE.

The district and the pathway leadership series play an important role in the overall initiative because they provide ConnectEd and SCOPE with their best opportunities to introduce or reinforce the principles underlying Linked Learning to all the districts at the same time. Participants in the leadership series generally found the sessions helpful. Not surprisingly, though, the salience of session topics and the ideas that participants found useful varied — not every event resonated with every individual or every team. Going forward, the fiscal situation in many of the participating school districts may result in additional cuts in district staff, larger class sizes and more responsibilities for fewer people. Therefore, maintaining enthusiastic participation in the leadership series may require shorter sessions with highly targeted goals.

Conclusion

As this summary of year-two findings suggests, the Linked Learning District Initiative has accomplished much in a limited time. In the nine participating districts, Linked Learning has become the central philosophy for high school reform, endorsed by the engines of educational governance and often by community governance as well. Districts have made good progress in their efforts to inform families about the pathways available to students as they move from middle school to high school, and are increasingly thoughtful about the need for equity in the choices that students have. At the school and pathway levels, development and adoption of curricula that integrate rigorous academics and technical education steadily progressed over the two-year period. Impressively, all of this occurred during a period of state and local economic crisis resulting in drastic cuts to district budgets.

Some areas of Linked Learning call for greater concerted effort and/or rethinking about their role in the initiative's overall strategy. First is the area of pathway instruction. Traditionally, high school instruction is teacher-centered, with teachers lecturing, giving directions, asking questions and overseeing occasional small-group and individual assignments during class time. The Linked Learning approach aspires to create student-centered classrooms with more hands-on learning, integrated academic and technical education units and opportunities for students to take greater responsibility for their own learning and that of their fellow students.

This fundamental change in instruction will require a great deal of support for teachers. Lessons that our team has learned from evaluations of other high school reform initiatives — such as the Early College High School initiative and the Science, Technology, Engineering and Mathematics (T-STEM) academies in Texas — suggest that stakeholders involved in the Linked Learning District Initiative now need to start paying serious attention to instruction rather than structural changes. As a first step to working on professional development for instruction, initiative staff must define the kinds of instructional strategies that teachers need in order to implement the Linked Learning approach well. Professional development in instructional strategies will take time to implement. District, school and pathway leaders need to be involved in planning the scope and focus of any future professional development on instruction.

The nine participating districts have accomplished much in a limited time. Three areas in particular require additional attention: pathways instruction, work-based learning and student support.

The second area for special consideration is work-based learning. The nine participating districts have engaged in a lot of necessary groundwork to set up systems for work-based learning — hiring support staff, defining a work-based learning continuum, garnering partners to serve as work-based learning advisors and figuring out systems to match pathway work-based learning needs with partnership opportunities. Nevertheless, districts continue to be challenged to provide all students with meaningful work-based learning experiences connected to the academic and technical core. If work-based learning is a key part of the

Linked Learning theory of change, then the lack of robust work-based learning opportunities is cause for concern as the initiative seeks to achieve meaningful, measurable student outcomes during the next two school years. If work-based learning is less critical than other components, then its importance should be downplayed in all the documents and blueprints driving the initiative.

The third area for improvement, student support, is prominent in Linked Learning theoretical documents but has received little implementation attention thus far. The supports available to pathways students are, for the most part, the same as those available to all high school students. Likewise, the supports available to English language learners and special education students are the same as those available to all such students districtwide, whether or not they are enrolled in a pathway. In the latter cases, the standard supports are often disruptive to full participation in the pathway experience. If successful student participation in pathways does indeed require more or different supports for some or all students, no district has yet tried to adapt its traditional student support systems to fit the Linked Learning context.

Now that the initiative is in its third year, the key question is whether Linked Learning has taken hold strongly enough to have an impact on student engagement, motivation, persistence, achievement and graduation.

At this point, the evaluation suggests that the nine participating districts are on the right track — all of the districts are deep in the implementation process and some are further ahead than others. During the 2011–12 school year, the evaluation team will continue to document the initiative’s implementation while also beginning investigation into the impact of Linked Learning on students.

“ I loved it (my internship) because it was really fast-paced, but it was also a really good learning experience... there was a lot of stuff that I didn’t know... the quirks of how everything runs and the relationship between the people. It was applying what I learned here (in school) to what I see in the workplace. I mean, they teach us about how to work with your fellow team workers. It was better than reading it on a piece of paper or seeing in on a PowerPoint.” — Pathway Student