Design Thinking:
A Process for Developing and Implementing Lasting District Reform

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*U*ntil recently, a Kaiser Permanente facility in Oakland struggled with a common problem: how to maintain quality patient care during nursing shift changes. Typically the shift change process took 45 minutes or more as outgoing nurses briefed incoming nurses on patients. Along with the time lag, which left patients mainly unattended, information exchange was unreliable with important details left out. Today the facility uses a new protocol called Nurse Knowledge Exchange, in which the briefing takes place in front of the patient and the patient is encouraged to participate, thus helping ensure that all important information is passed on (McCreary, 2010).

To find this solution, Kaiser turned to their Innovation Consultancy, a small team created for the sole purpose of addressing systemic challenges. Using an approach known as design thinking, this team pursues what they describe as "an expansive, service-focused version of innovation."

Implementing effective systemic changes is an issue that leaders in every industry grapple with, from medical care to business. And, as with Kaiser, many leaders are turning to design thinking.

Design thinking has the potential to be an effective tool for systemic change in education as well. Traditionally, challenges such as how to sustain district reform, how to build a leadership pipeline, how to create an integrated project, or how to best intervene with struggling students would be resolved with a team of "experts" developing a solution in isolation of the stakeholders involved. Instead, design thinking centers on the knowledge and experiences of those on the front lines—in the same spirit as student-centered learning, differentiation, and other user-centered approaches in education. As McCreary observes, "The goal is to find hidden clues to the nature of the problem at hand and some line of inquiry for progressing toward possible solutions" (2010, p.2).

Design thinking aims to implement systemic change through innovation, with particular emphasis on new mindsets. This includes an empathy mindset, the need to break down traditional walls among stakeholder groups, and a focus on the experiences and needs of

clients. Design thinking culture also emphasizes thinking outside the box, progress through trial and error, and a commitment to changing traditional policies, structures, and practices. The process relies on prototyping and recognition that failure is valued as part of a continuous cycle of improvement.

Connections to High School Reform

Design thinking has been increasingly embraced in classrooms and schools, and now as part of district reform. With support from the James Irvine Foundation, 10 district leadership teams in the California Linked Learning District Initiative recently learned and practiced design thinking as part of a summer institute co-hosted by the School Redesign Network (SRN, a program of the Stanford Center for Opportunity Policy in Education), ConnectEd: The California Center for College and Career, and Stanford's Hasso Plattner Institute of Design (aka the d.school).

Linked Learning connects learning in the classroom with real-world applications. In Linked Learning schools, students integrate rigorous academic instruction with a demanding technical curriculum and field-based learning —all set in the context of a major industry sector. Students pursue a pathway and graduate prepared for both college and career, not tracked into one or the other.

While Linked Learning has been increasingly adopted in individual schools across the country, the 10 districts participating in the California Linked Learning District Initiative are working to take this innovative model to scale across their high schools. With the support of a District Leadership Series and additional coaching, districts are working to fundamentally shift the culture, structures, and practices of central offices so that teachers, administrators, parents, community members, business and industry partners, and other key stakeholders can work together to create high school systems that will truly prepare all students for college and career success.

In order to support this systemic transformation, stakeholders need essential tools and structures. One of the frameworks that effectively provides these is design thinking.

Design Thinking in Action

DESIGN THINKING PROCESS
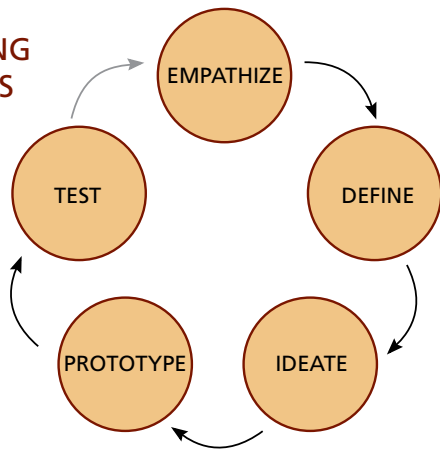
Courtesy of the Hasso Plattner Institute of Design at Stanford University

During the summer institute at Stanford, district teams learned how design thinking can be applied to district reform using elements from the design thinking process (see illustration above). The team from Los Angeles Unified School District Local District 4 (LD4), which included their superintendent, district administrators, principals, teachers, and community partners, engaged in the design process, focusing on a high priority central question. Their process is illustrated in the table at right.

In partnership with the Los Angeles Small Schools Center, the team from LD4 has continued to integrate design thinking into other areas of work. For example, they adapted the design thinking process to support teacher teams in developing integrated projects that resulted in more authentic curriculum strongly grounded in student needs and interests.

Barriers to Progressing Design Thinking

Traditional District Culture

In *The Flat World and Education* (2010), Darling-Hammond refers to the ripe conditions for innovation within school networks like Envision Schools, Asia Society, High Tech High, and others. These networks have been able to introduce and systemically support new educational approaches for all of their schools including performance assessments, exhibitions of learning, and advisory systems. However, she says that typical district culture and systems may prevent such new approaches from transcending the silo of an individual classroom or school, noting, "Even when there are good intentions

to support innovation, local districts are subject to a geological dig of laws, regulations, precedents, and standard operating procedures that can be enormously difficult to untangle before they strangle change efforts." (p.267)

Interestingly, there are numerous examples of external providers who have succeeded in infusing innovation into school districts. Districts have supported innovative solutions to recruitment challenges with the help of organizations like New Leaders for New Schools and the New Teacher Project. While external organizations can play a role in reform efforts, districts require internal capacity to support essential conditions for innovation and for design thinking to flourish. Even in districts that have supported the creation of new small schools and small learning communities, many have struggled to support a culture of innovation where design thinking could truly thrive. Raywid (2002) observes:

> We continue to bind these new organization entities within old organization structures, shackle them with outmoded practices, and impose regulations designed for another time and place—while denying them the particular supports they need for success.... When structures and policies act as barriers to innovation, we must modify them if we want small schools to flourish.

In order to establish the conditions for systemic change, districts need to model the transformation they want to see in schools. Darling-Hammond advocates for districts to practice a culture of innovation by fundamentally changing the way they do business. starting with attention to addressing the extensive rules and bureaucratic approaches that relate to school practices.

Darling-Hammond recommends changes that:

> …represent a switch from bureaucratic accountability—that is, hierarchical systems that pass down decisions and hold employees accountable for following rules, whether or not they are effective—to professional accountability—that is, knowledge-based systems that help build capacity of schools for doing the work well, and hold people accountable for using professional practices that enable student success. (p. 270)

Central Question

How can Local District 4 ensure that a wide range of stakeholders deeply understand and deliberately support the vision embedded in the Linked Learning Initiative?

Design Process Stage	District Leadership Example
Empathize Design teams learn more about the people for whom a solution is being designed. With data gathered through stakeholder interviews, observations, and other research activities, the team creates a character sketch to represent the target user.	The team from LD4 interviewed teacher colleagues, a principal, and parents. They asked questions regarding the user experience related to Linked Learning, including: • *What do you already know about Linked Learning?* • *What has helped you embrace this approach?* • *What has contributed to your skepticism or resistance?* • *What additional information might you need to better understand or embrace Linked Learning?* After discussing their findings, the team created a sketch of their target user, naming it "The Resister." To symbolize this user, the team created a three-dimensional model using balloons and pipe-cleaners.
Define Design teams synthesize findings from their inquiry and clarify end goals, including specific client needs.	The LD4 team synthesized that the underlying problems experienced by The Resister were related to messaging and communication. Their end goals included the need to more consistently articulate the vision for Linked Learning in the district's daily work and to create varied strategies for engaging stakeholders around this vision.
Ideate This brainstorming stage uses these guiding principles: • *Encourage wild ideas and go for volume* • *Build on the ideas of others* • *Bring in new perspectives* • *Defer judgment* • *Hold one conversation at a time and stay on topic* • *Be visual*	Grounded in a deeper understanding of the user needs and practicing the brainstorming guidelines, the team explored a wide range of actions and solutions for addressing the needs of The Resister. These included: • *Regular meet-and-greets between the district and stakeholder groups, featuring district skits to help communicate messages* • *Focus groups to inform strategies for effective messaging with different stakeholders* • *Interviews of individual Resisters to better understand the nature of their resistance* • *Radio spots featuring dramatic stories of students who have succeeded with Linked Learning*
Create a prototype Teams visualize potential solutions: this may include drawings, models, videos, and role-plays. Instead of figuring out one perfect solution, teams decide on one or more ideas to attempt.	The LD4 team decided to move forward on piloting a major convening, with significant representation from all key stakeholder groups. The team drew images to help visualize the format and content of the session.
Test your prototype Teams take prototypes "out for a spin." The success or failure of these trials inform next steps as part of a cycle of continuous improvement.	The LD4 team piloted their convening at the beginning of the school year. After reflecting on the outcomes of the event, the team identified some essential adjustments for future implementation including the need for clearer articulation of the Linked Learning vision and for renewed outreach to stakeholder groups beyond teachers and principals.

Policy Assumptions

Frequently, innovative practice is stifled due to the perception of policy barriers. Hess (2008) acknowledges that real obstacles can certainly exist through state policy and collective bargaining agreements. However, he says that a culture of innovation is more likely to emerge if districts scrutinize "soft policy"—cultural norms that determine what is and is not acceptable. He says, "Often what we explain as impermissible policy barriers are actually cultural barriers and a lack of energy and inertia that is bound up in a phrase called 'policy.'"(p. 19)

Skepticism around Sustainability and Alignment

Teachers, principals, and district leaders alike can point to their many experiences of regularly watching the latest reform strategies come and go. Similarly, Darling-Hammond (2010) cautions against the idea of simply allowing districts and schools to prototype and create more and more initiatives. She refers to the work of former superintendent Tony Alvarado who developed a plan in New York City District #4 that set the stage for the development of many new schools. Alvarado learned that the "let a thousand flowers bloom" approach led to very few of the flowers actually blooming, as schools never got off the ground due to isolated efforts across the district. These experiences contribute to an understandable skepticism around the viability of prototyping and building a culture of innovation.

Design Thinking as Part of the Solution

Interestingly, as practiced by the California districts, design thinking can help diminish the very conditions in districts that seem to stifle innovation. Part of this culture shift can occur when central office teams model practices that help break down bureaucratic barriers and that encourage innovation, collaboration and accountability across stakeholder groups. In terms of policy, in a human-centered design process, district teams can uncover the kinds of barriers that are truly unavoidable and those that are merely assumptions based on past behavior.

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While design thinking supports leadership teams to "think outside the box," it is not meant to encourage disparate priorities or a wide range of competing prototypes. To best impact systemic challenges, it should be practiced as part of an aligned set of focused priorities across schools and districts. To support this alignment and nurture a culture of innovation, district leadership should thoughtfully integrate design thinking into already-existing appropriate structures including strategic planning forums, curriculum development sessions, and teacher and principal leadership development.

Toward a Culture of Innovation

A culture of innovation can and should be focused on transforming classrooms and schools to support student outcomes. This involves peeling back the many layers of normative and political challenges that represent long histories of "business as usual." The principles and structures of design thinking can support these essential shifts as districts, schools, and communities challenge the status quo. With district leadership taking the lead, this renewed culture of innovation can have a profound impact on school structures, classroom practice, and ultimately, student outcomes.

References

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For further information about the design process, please visit Stanford University's Hasso Plattner Institute of Design at *http://dschool.stanford.edu.*

Acknowledgements