



EXPERIENCES IN PRACTICE:

LEVERAGING DESIGN THINKING TO ADVANCE
CHANGE FOR TRAILBLAZER ELEMENTARY SCHOOL
AND THE COLORADO EDUCATION INITIATIVE

Ann Yenne, a veteran teacher at Trailblazer Elementary School in Colorado Springs, wants to do well by her students—all of her students.

Yenne works hard to create a classroom that fosters engagement and a love of learning, but she often finds herself in a game of tug-of-war. When it comes to students with disabilities and other struggling learners in her classroom, she feels like she's dragging them into learning rather than inspiring them to drive the learning process. Yenne is no stranger to "educational innovation," such as hands-on learning opportunities, small group instruction, or blended learning. Yet she has found that scaling these well-meaning approaches is not an issue of policy or pedagogy. Instead, it's an issue of mindset: How do you design systems that work for all students, especially for those who have varied learning needs? And how do adults think about what students can and can't do? .

The Colorado Education Initiative (CEI)—one of Yenne's partner organizations in this work—struggles with a related issue: How do you obtain buy-in and help develop a mindset of full inclusion and continuous learning within partner schools and districts? Yenne and CEI have both found promise in something called *design thinking*. In design thinking, the focus is on the needs and experiences of the "end user" of an initiative (in this case, personalized learning)—the student. Leaders and practitioners collaboratively brainstorm and build solutions that are tailored to improve the outcomes and experiences of each student in every classroom.

Through the SpaceLab project—an initiative run by CEI to build partners' capacity to engage in design thinking—Yenne began to reimagine the way she used space, time, and resources to more effectively serve her students, including those with disabilities, and meaningfully engage them in owning their learning experiences in the school's personalized learning environment.

THE VISION: 5 ESSENTIAL COMPETENCIES THROUGH NEXT GENERATION LEARNING SYSTEMS

CEI and Yenne's school came to work together as a result of their common vision for education and the culture around teaching and learning in the state. In Colorado, districts and schools have wide latitude to drive their vision of learning and often receive support from the state, as well as from organizations like CEI as needed. CEI's first step in its efforts to support schools was to create a space to develop a vision for education. Throughout 2012 and 2013, CEI collaborated with and convened districts like Yenne's, the Colorado Department of Education, the business community, and other state leaders, to develop a common vision for learning. This vision included expectations for what all students, including those with disabilities, must know and be able to do to succeed. At the center of the vision is that all students will develop five competencies—academic, professional, entrepreneurial, personal, and civic—that are essential to future success.



Shifting the definition of success in classrooms like Yenne’s from one that focused solely on academic proficiency to one that includes five competency domains requires major changes in how education is delivered. Therefore, CEI continued to work with partners in the state to devise the best mechanism to facilitate these competencies. Ultimately, CEI created a project to support Next Generation Learning systems. Schools and districts implementing Next Generation Learning systems would have five key features in common, specifically designed to help schools empower their students to achieve those five competencies. Those five features were:

- **Personal and personalized:** Educators use a variety of means to best meet the needs of each learner.
- **Competency-based:** Student progress is dictated not by grade levels and seat time, but by mastery of assessed competencies.
- **Co-created:** Students take greater ownership of learning.
- **Safe and healthy:** Students learn in safe, welcoming, and healthy learning environments.
- **Time-, talent-, and technology-enabled:** Students have greater flexibility in where, when, how, and through whom their learning takes place.

Yenne’s school district, Colorado Springs District 11, signed on to implement this ambitious initiative, knowing that making the shift to a Next Generation Learning system requires enormous changes in practice for a school like Yenne’s. If effectively implemented, it changes the very nature of relationships between students and

TRAILBLAZER ELEMENTARY SCHOOL AT A GLANCE

Location:
Colorado Springs, Colorado

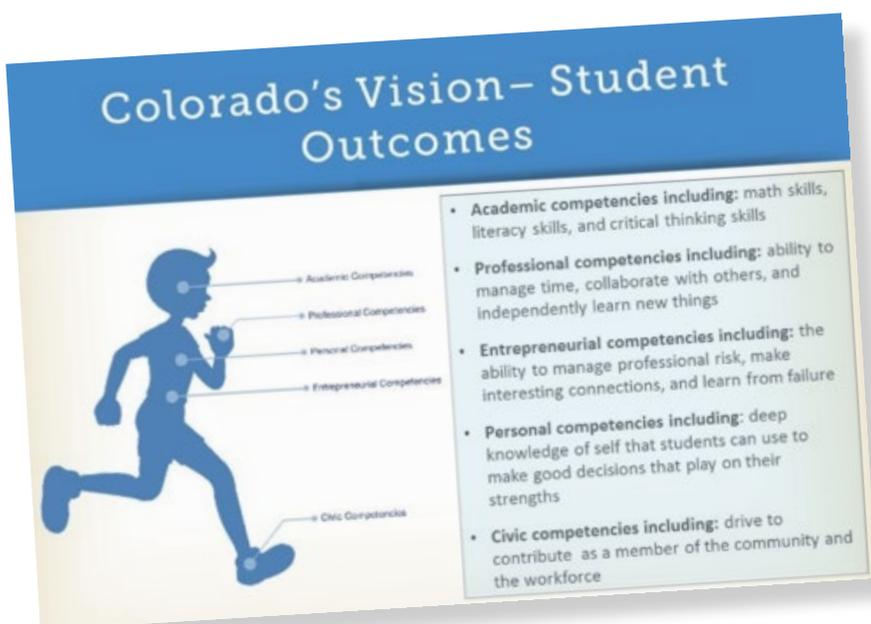
of Students: **350**

of Students With Disabilities: **25**

Year Yenne Began Collaborating with CEI SpaceLab: **2017**

Other Grants/Funds Supporting Work:
No additional funds for the SpaceLab design thinking work specifically

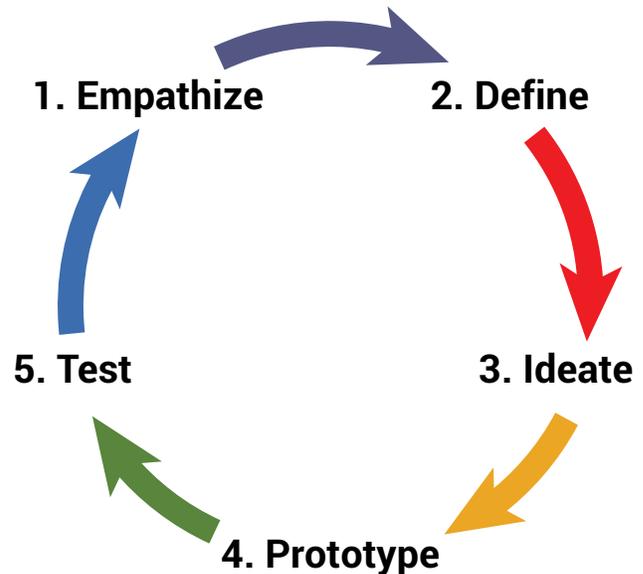
adults, how success is defined, and how resources are deployed. There are two key questions for Yenne and CEI: First, how can they ensure that these large-scale changes will meet the diverse needs of all learners and learning needs in Yenne’s classroom? And second, how can Yenne’s school and its partners continually learn from their experiences and modify practices to more effectively serve students with diverse learning needs?



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TRANSFORMING MINDSETS TO SUPPORT CHANGE: THE ROLE OF DESIGN THINKING

For the Colorado Education Initiative, the SpaceLab project has been critical to supporting Yenne and her school through these large-scale Next Generation Learning system transitions. SpaceLab, led by CEI Senior Manager Tara Jahn, is not itself an independent initiative of CEI—it is a layered support that strengthens Next Generation Learning and the organization’s other initiatives. Specifically, it supports CEI’s partners and grantees in infusing design thinking into their practices through five steps:



- 1. Empathize:** Design thinking starts with concerted efforts to empathize with those being served, coming to deeply understand their strengths, challenges, and needs. CEI engages in this process regularly with partners like Yenne and works to empower Yenne to similarly engage in empathy-enabling conversations and experiences with her students. In her classroom, Yenne created focus groups—or (un)focus groups as she called them—of students to help with this process. By listening to her students, including those with disabilities, she began to see how they were experiencing the classroom learning environment.
- 2. Define:** Following the empathy stage, design thinking calls participants to synthesize what they heard and find patterns across observations. Yenne didn’t do this alone—she had her students help. She assigned groups the task of defining how they preferred to learn, practice, and demonstrate a skill; transcribed their answers; and identified common themes across different groups. CEI holds regular convenings with partners like Yenne as they implement design thinking and helps them solve problems and leverage resources to address common challenges.
- 3. Ideate:** The ideation phase is when the individual and group engaging in design thinking reflect on the problem and begin to develop ideas to address it. Yenne had groups of students engage in an independent activity of creating their perfect learning environment and defining and reflecting on what needed to happen to facilitate that experience. She then did one-on-one interviews with about a third of her class to discuss how resources in the room could be leveraged to facilitate their perfect learning environment.
- 4. Prototype:** After all the ideas are out in the open, the next step is to prototype some of the ideas and begin to gauge impact. Yenne started implementing the design thinking process later in the year and, as a result, didn’t have as much opportunity to fully implement the last two phases of design thinking on the scale she hopes to engage with in the future. Even so, she did begin to sketch out how her students would engage with and demonstrate learning, eventually bringing those ideas to both her students and to her critical friends in the SpaceLab project. All of them asked questions and offered suggestions to help sharpen her ideas.

5. **Test and scale or scrap:** Even starting the design thinking process late in the year, Yenne was able to test out some of the ideas that emerged through her design thinking exercises. Based on feedback from her students, she provided them more opportunities to deepen their engagement with learning. Yenne developed hands-on, 3D models of concepts her students were learning in their math class as well as a more streamlined way for them to demonstrate to her that they were ready to move on to more complex topics. Similarly, in response to the feedback from Yenne and other participants, Jahn and the CEI team began to devise new ways for design thinking participants to communicate successes and challenges with each other and access supports and advice. Based on feedback in these short cycle innovations, Yenne and CEI began seeing signs of success. Yenne saw her students taking greater ownership over their learning and CEI found educators increasingly collaborating and communicating with each other and, in turn, with their students.

These five steps are an iterative process of invention, reflection, and re-creation. Maintaining this as an iterative process not only improves overall quality of results, but improves the likelihood of achieving larger goals: the continuous reassessment of implementation and the adjustments necessary to increase the impact on students with disabilities and other traditionally disadvantaged groups.

IMPLEMENTING DESIGN THINKING THROUGH SPACELAB: LESSONS FOR OTHER NONPROFITS

The design thinking story above takes place at two different levels: first with Yenne, as the teacher implementing the framework in her classroom; and the second with CEI, as an organization supporting teachers like Yenne and their schools. The efforts to ensure that CEI's work is successful should not be underestimated, as it requires a great deal of intentionality and strategic thinking.

To ensure CEI's implementation of design thinking is successful, the organization first engaged with partners to establish a common vision of educational success for all learners and developed initiatives to support that vision. Second, CEI allocated resources and staff to a new initiative, SpaceLab, focused specifically on the mindsets of actors. Next, CEI created a community and a space for partners to learn from each other and inform CEI's organizational priorities¹. Finally, CEI set up institutional mechanisms to ensure that the shared learning informed how they administered initiatives like Next Generation Learning.

Moreover, to ensure that this effort meets equity and inclusion goals, CEI was intentional about infusing those goals at every stage of the effort. Specifically, CEI made clear that: the learning goals they established applied to all students; the partners involved in this effort shared a commitment to equity and inclusion and reflected the diverse actors who would be impacted by subsequent initiatives; and that CEI's leadership was open to the difficult conversations that might arise and was prepared to shift course to stay true to these equity and inclusion goals. While the steps taken by CEI are not easy, they are necessary as nongovernmental organizations like CEI become increasingly involved in and essential to educational innovation nationwide.

¹ CEI's SpaceLab initiative accomplishes this goal through: (1) workshops and interactive site visits where participants use the design thinking framework to assess different challenges and provide feedback; and (2) networking sessions that help establish a community of support for participants.

BENEFITS AND CHALLENGES FOR STUDENTS WITH DISABILITIES

To ensure equity and inclusion, those goals must be intentionally built into the framework and implementation. There are real benefits and challenges of this model for educators like Yenne who are implementing design thinking, and for organizations like CEI.

Key Benefits of Design Thinking for Students with Disabilities

- **Empathy**

The empathy stage of design thinking provides a foundation for teachers like Yenne and organizations like CEI to more deeply consider the needs and experiences of students with disabilities and other traditionally disadvantaged groups.



- **Launching Point for Redefining Education**

The ideation process of design thinking can empower Yenne and partner organizations like CEI to devise different ways to access learning that could be better suited to the unique needs of students with disabilities and other traditionally disadvantaged groups.

- **Continuous Learning Through Prototyping**

The prototyping and reflection stage of design thinking can ensure that Yenne and CEI are trying out new approaches, learning from their practice, and continuously improving how they implement initiatives and serve students with disabilities and other traditionally disadvantaged groups.

Key Associated Challenges of Design Thinking for Students with Disabilities

- **Inclusion**

The benefits of empathy can only materialize if Yenne and CEI intentionally seek the perspectives of students with disabilities, other traditionally disadvantaged groups, and their families, and then meaningfully engage them in the process.

- **Experimentation and Struggling Learners**

While new learning approaches can provide positive benefits for students with disabilities and other traditionally disadvantaged groups, efforts should ensure that interventions are evidence-based and not simply random experimentation.

- **Ensuring Dynamic Systems**

Systems must be in place to ensure that educators are learning, reflecting, and adjusting their practice based on challenges and opportunities that arise from prototyping.



CONCLUSION

Educational redesign is not simply a matter of policy, such as changing high school graduation requirements, teacher preparation, or the features of an assessment system. Nor is it simply a matter of practice, such as changing the specific instructional approach a teacher leverages to deliver content. Instead, educational redesign is also a matter of mindset. It challenges us to consider critical questions: What do we believe students should know and do? Who is involved when we make decisions? How do we deploy resources to serve all students effectively? How do we judge the success of a system as a whole? Design thinking can be an important tool as we consider and answer these questions. Leveraging this approach effectively and inclusively can help lay the foundation for an educational system that ensures all students are prepared for college, career, and civic success.

