

Journeys to Personalized Learning

CASE STUDY:

MESA COUNTY D51



About FSG

FSG is a mission-driven consulting firm supporting leaders in creating large-scale, lasting social change. Through strategy, evaluation, and research we help many types of actors—individually and collectively—make progress against the world’s toughest problems.

Our teams work across all sectors by partnering with leading foundations, businesses, nonprofits, and governments in every region of the globe. We seek to reimagine social change by identifying ways to maximize the impact of existing resources, amplifying the work of others to help advance knowledge and practice, and inspiring change agents around the world to achieve greater impact. As part of our nonprofit mission, FSG also directly supports learning communities, such as the Collective Impact Forum, the Shared Value Initiative, and the Impact Hiring Initiative, to provide the tools and relationships that change agents need to be successful.

FSG has worked extensively on issues related to personalized learning, including work with schools, nonprofits, foundations, and government entities. We are particularly focused on accelerating the pace of learning and improvement within the personalized learning sector, on connecting the experiences of practitioners with those who hold power, and on understanding the conditions and supports needed for personalized learning to succeed and spread.

FSG wishes to thank the teachers, students, and administrators of Mesa D51 for their transparency, willingness to be the subject of this case study, and good humor and flexibility throughout the writing process. Specifically, FSG thanks Leigh Grasso, Rebecca Midles, and Steve Schultz, who graciously told their stories, responded to requests, checked facts, and welcomed the FSG team to multiple site visits. FSG also wishes to thank the Bill & Melinda Gates Foundation, whose generous support and thought partnership made this series of case studies possible.

TABLE OF CONTENTS

ABOUT THE SERIES	2	FULL DISTRICT IMPLEMENTATION (2016-2017)	25
EXECUTIVE SUMMARY	4		
INTRODUCTION	6	PERSONALIZED LEARNING AT THE SCHOOL LEVEL	29
About Mesa County and District 51 (D51)	7	Learning at New Emerson	29
		Learning at Lincoln Orchard Mesa	32
BUILDING CONSENSUS	9		
Visiting Lindsay	10	FOCUS ON THE FUTURE (2017-PRESENT)	34
PLANNING	12	Preparing for 2017-2018	34
Refining a Roadmap	16	Challenges	35
		Lessons from the Ongoing Journey	36
DEMONSTRATION SCHOOLS	20	APPENDIX	39
Growth Mindset	20		
Honing the Vision, With Community Input	22		
Evolution of the Demonstration Schools	23		

ABOUT THE SERIES: *JOURNEYS TO PERSONALIZED LEARNING*

In late 2016, FSG, with support from the Bill & Melinda Gates Foundation, began to explore how a series of case studies could support the adoption of quality personalized learning in schools and districts nationwide.

After an extensive scan of existing resources and dozens of interviews about what new research would help strengthen the sector, one theme came through with particular clarity—in talking about personalized learning, we as a field tend to focus on the visible structures and practices that define a school model. On one hand this focus is practical and useful. But, like an iceberg, what happens beneath the surface often matters more to school success. The challenge is that things like leadership, culture, processes, norms, and values—and most importantly, how these fit together—are hard to observe and hard to write about for an outside audience. That’s why these case studies are intentionally detailed: they trace how multiple factors came together, over time, to support transformational change in three school systems through personalized learning.

By emphasizing the journey, we hope these case studies can complement other, existing resources that spotlight practices and models. We’ve linked to many of these excellent resources when possible. Ultimately, our desire in writing these case studies is that readers will learn from subjects’ successes, avoid obstacles, gain the belief that change is possible, and think critically about how to approach transformation through personalized learning in their own schools or districts.

Jeff Cohen

David Phillips

Florian Schalliol

Matt Wilka

The series highlights the journeys of two public school districts and one public charter school.

SUBJECT	PROFILE	KEY ELEMENTS OF THE JOURNEY
HENRY COUNTY SCHOOLS (HENRY COUNTY, GA)	<p>Large metro school district with urban/suburban/rural schools</p> <p>42,000 students</p> <p>54% Free/reduced lunch</p>	<ul style="list-style-type: none"> • Vision and plan for district-wide personalized learning • Phased rollout over many years, in support of core vision • Focused effort to win hearts and minds • Culture of continuous improvement and comfort making mistakes • Encouraging schools to adapt to their contexts (being “loose”) while adhering to key tenets (being “tight”)
MESA COUNTY VALLEY DISTRICT 51 (MESA COUNTY, CO)	<p>Suburban public school district</p> <p>22,105 students</p> <p>51% Free/reduced lunch</p>	<ul style="list-style-type: none"> • Adapted national expertise to local context • Buy-in across typically partisan divides • Multi-year foundation of culture and mindset change • Creating advocates and support across the district • Made progress despite limited funds
CICS WEST BELDEN (CHICAGO, IL)	<p>Urban public charter school</p> <p>530 students</p> <p>90% Free/reduced lunch</p>	<ul style="list-style-type: none"> • Trust and culture as a precondition for transformation • Distributed leadership and buy-in • Importance of collaborative planning time • Staging implementation of personalized learning • Partnering for expertise at key moments



EXECUTIVE SUMMARY

Mesa County Schools: Key Statistics



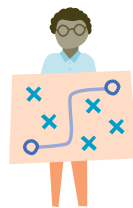
LOCATION: Mesa County, Colorado
NUMBER OF STUDENTS: 22,105
NUMBER OF EMPLOYEES: 2,685
STUDENT DEMOGRAPHICS: 3.7% ELL; 51% FRL; 14% IEP

This case study describes the journey taken by Mesa County Valley District 51 (D51), a public school district located in Grand Junction, CO, to shift to a more personalized model of education. The study first examines how personalized learning evolved at Mesa County and later explains the specific models used at several schools in the district. By focusing on this district’s journey, we show how a single district can move from a traditional instructional approach to a personalized one. While every context is unique, the lessons of D51 are likely applicable to other schools, districts, and charter management organizations that wish to adopt personalized learning approaches.

Mesa County D51’s personalized learning journey



BUILDING CONSENSUS



PLANNING



DEMONSTRATION SCHOOLS



FULL DISTRICT IMPLEMENTATION

TIMELINE	<i>Spring 2014 - Fall 2014</i>	<i>Spring 2015</i>	<i>Fall 2015 — Spring 2016</i>	<i>Fall 2016 — Present</i>
MAIN ACTIVITIES	After learning about personalized learning from other districts, D51’s superintendent sent school leaders, board members, and community leaders to see personalized learning first-hand, thereby building consensus for a transformation at D51.	With strong enthusiasm for personalized learning, D51 made ambitious plans to implement it in the district the following academic year.	As a first step to implementing personalized learning, D51 worked with seven schools to begin laying the groundwork for personalized learning.	With high interest across the district, D51 moved forward with supporting all schools to shift to a personalized learning system.

Lessons from Mesa County D51's Journey

- 1 Adapt national expertise to local context:** As an “early adopter,” D51 benefited from the work of schools and districts that had gone before it, through multiple site visits to other districts, the guidance of experienced partners and technical assistance providers, and the expertise of staff members who had worked in other districts. Though D51 gained valuable knowledge from those sources, the district still needed to adapt the models and practices to the specific context of Mesa County. Key elements of that adaptation included comprehensive community engagement and the latitude given to individual schools to adopt models and approaches that worked best for them.
- 2 Build buy-in across typically partisan divides:** D51's school board changed in ways that reflected the shifts in the national political landscape, but the district's leadership was thoughtful about creating opportunities for board members across the political spectrum to find common ground. Holding an off-site retreat for the newly elected school board as well as intentionally sending board members with differing political views on site visits together helped to build relationships and create alignment even among those who might not ordinarily find much on which to agree.
- 3 Establish a multi-year foundation of culture and mindset change:** D51's approach to implementing personalized learning has focused on first putting in place the groundwork of necessary mindsets and practices and only then bringing in the technology that people usually associate with personalized learning. More than two years after the district first committed to personalized learning, many classrooms still do not have the “visible” aspects of personalized learning. While the most “visible” changes of personalized learning have been slow to arrive, substantial progress has been made on the “nonvisible” components, increasing the likelihood that schools will successfully make the jump to personalized learning and that the changes will stick, since they are supported by durable shifts in mindsets and practices.
- 4 Create advocates and support across the district:** D51's leadership inspired commitment to personalized learning at all levels of the district and the community through a carefully sequenced stakeholder engagement approach. Each step of D51's “cascading” approach built both momentum and support for what was required in the subsequent step. The careful cultivation of advocates and supporters facilitated change in a resource-constrained environment.
- 5 Make progress despite limited funds:** Mesa County's school district received very little in the way of philanthropic funding. With a clear vision in place, the district was able to use the limited grants and opportunities that were available to build momentum and advance the work. The relative dearth of external funding meant that the implementation process was slower and more challenging in ways, but D51 staff was able to fund the shift to personalized learning almost exclusively by realigning existing resources.

INTRODUCTION

Don Trujillo is giving a school tour on a typical day at R-5, the alternative high school in Grand Junction, CO, of which he is the principal. “We serve students who have had all sorts of misfortune in their lives. 99% of our students are considered at risk,” he explained before breaking off to address a passing student: “*Ricardo! Como te fue en el partido de basket?*” Walking through the main student center of the high school, Trujillo continued: “Here at R-5, we work to get our students where they are going, wherever that may be.”

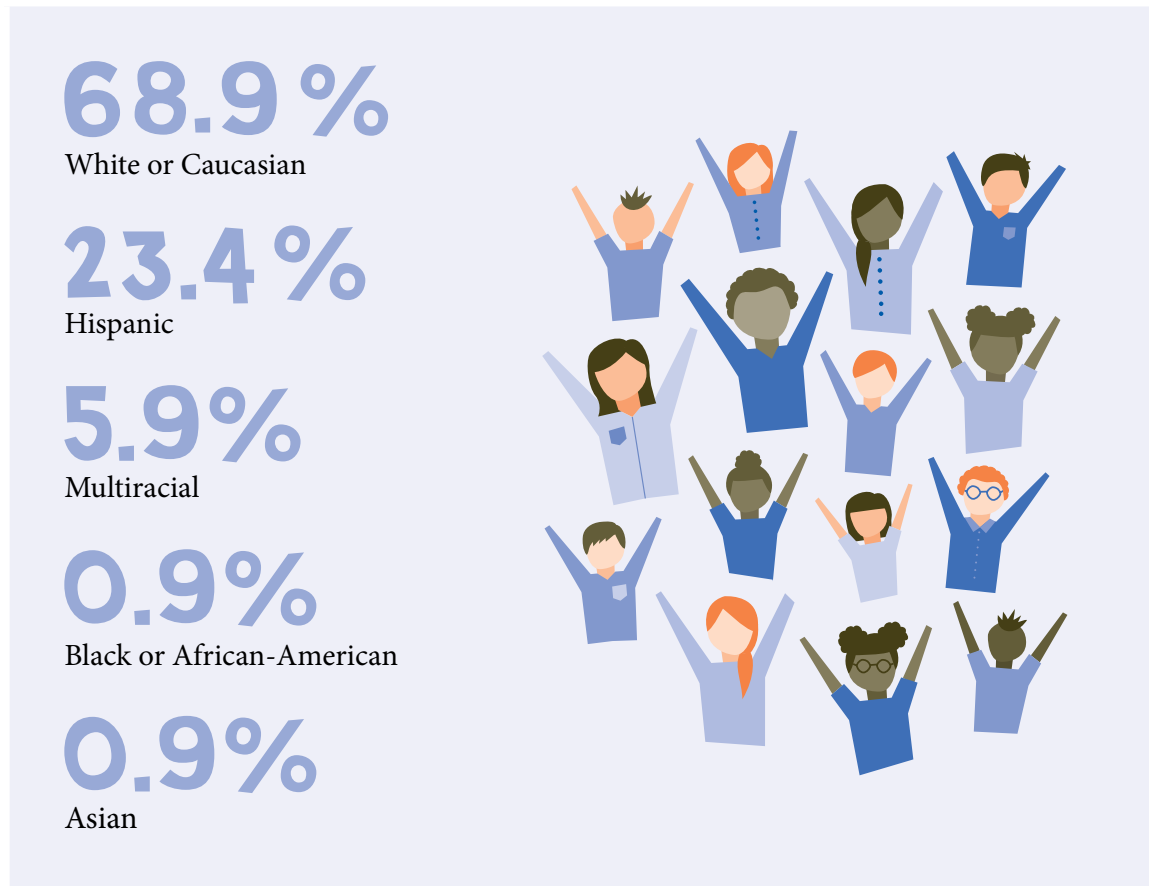
To the left, three students sat nestled in a semi-private corner between a table and a couch: one was reading a book; another was editing her résumé; the third was working quietly on a laptop. To the right, six students participated in an interactive lesson on the federal budget. As another student walked by, Trujillo called out “Cassidy! Where’s your little boy?” (Cassidy was one of four students who used R-5’s nursery.) Trujillo guided the tour outside. “This is our greenhouse,” he said. “We’re still working on it.” About a dozen students were spread around the scaffolding, each working on different tasks. “Jeremy! What are you working on?” A tall 18-year-old with thick work gloves turned around, shook the guests’ hands, and explained the swamp coolers that he had spent weeks researching and building.

R-5 is one of seven “demonstration” schools in Mesa County Valley District 51 (D51) that began the journey to personalized learning during the 2015–2016 school year. Although the alternative high school had not often been the district’s focus in the past, it has made great progress after two years of working on its personalized learning model. Students now have significant choice about how to structure their learning experience toward academic and career goals, from preparing for four-year degrees, to learning to code, to building a greenhouse. The school uses mixed instructional methods, including independent work, small group instruction, and project-based learning. At the same time, staff members support students along the journey, both through formal data and structured feedback and through spontaneous exchanges in the hallway, like Principal Trujillo’s.

While R-5’s specific approach to personalized learning is unique, it illustrates many of the changes that have taken place across the entire district. Over the past two years, D51 has begun a shift to personalized learning in all forty-seven of its schools. The process has been complex and at times messy, but Mesa County District 51’s ongoing transformation—at the district-, school-, and classroom-level—provides an informative example for educators across the country.

ABOUT MESA COUNTY AND DISTRICT 51 (D51)

Student Demographic Profile



Mesa County is a sprawling regional population center whose local economy is still recovering from the Great Recession.

Situated on the high plains of Colorado's western slope, Mesa County is the largest population center between Denver and Salt Lake City. Mesa County's population of about 150,000 is 82% white and 14% Hispanic or Latino, and 4% of the population identify with one or more other races.¹ Approximately 51% of D51's students are eligible for free or reduced-lunch (FRL) and 4% are English language learners (ELL). Historically, extractive industries, such as mining and gas, have driven the local economy, though the area continues to suffer the effects of the Great Recession that began in 2008. In June 2016, the unemployment rate in the county was 5.9%, higher than the US average of

¹ US Census Bureau, "2011–2015 American Community Survey 5-Year Estimates," <https://factfinder.census.gov/>.

4.9%.² The median income in Mesa County in 2015 was \$49,000, below the US median of \$54,000.³ Politically, Mesa County has leaned Republican in recent years; 65% of its voters selected Mitt Romney in 2012 and 64% picked Donald Trump in 2016.⁴ In addition, Mesa County suffers from a high suicide rate—nearly two and a half times the national average. A county record of 48 people, some of them students, committed suicide in 2016.⁵ This record has spurred intense, community-wide reflection about supporting all students.

At the district level, during the 2009–2010 school year, D51 underwent a Comprehensive Appraisal for District Improvement (CADI) review, which found inconsistent curricula and instruction across the district’s schools. “We had some national merit scholars and students going to Ivy League universities,” Steve Schultz, D51’s superintendent, explained. “We were okay. But okay isn’t good enough.” After the CADI review, the district focused on standardizing and aligning curricular practices. But in the aftermath of the Great Recession, the district faced a substantial reduction in resources. From the 2012–2013 to the 2016–2017 academic years, the district had to cut its operating budget by nearly 21%, decreasing it from about \$750 million to \$600 million.⁶ The cuts affected every corner of the district, from layoffs of more than 170 district staff to reductions in custodial supplies and equipment.

Beset by sluggish economic growth, stagnant educational attainment, and rising concerns over the suicide rate, residents of Mesa County collectively felt a need to take action to improve their education system. Within a few years, their commitment to personalized learning offered hope.

2 Bureau of Labor Statistics. See: https://data.bls.gov/timeseries/LAUMT082430000000003?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true.

3 US Census Bureau, “2011–2015 American Community Survey 5-Year Estimates.” Numbers rounded to nearest thousand.

4 Office of the Clerk of Mesa County, accessed 26 June 2017, <https://clerk.mesacounty.us/elections/stats--results/>.

5 Rebecca Hykin, “Mesa County Suicides at All Time High,” *Westernsloopenow.com*, April 14, 2017, <https://www.westernsloopenow.com/news/local-news/mesa-county-suicides-at-all-time-high/691928458>.

6 School District 51 Mesa County Valley, 2016–2017 Budget Information, accessed June 26, 2017, https://www.d51schools.org/about_us/financial_transparency/budget_financial/2016-2017_budget_information.

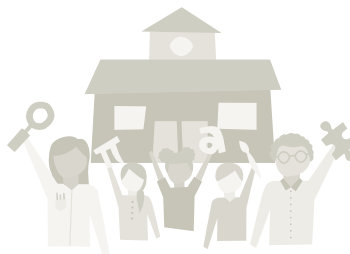
BUILDING CONSENSUS



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**DEMONSTRATION
SCHOOLS**



**FULL DISTRICT
IMPLEMENTATION**

With a gridlocked school board, personalized learning became a unifying force for D51.

From 2009 to 2017, D51 was led by Steve Schultz, a lifelong educator who had started as a teacher in the district's Columbus Elementary School in 1982. Schultz is widely regarded as a thoughtful and pragmatic leader. In 2011, he faced a leadership challenge when voters elected two politically conservative members to the previously center-left school board. As Schultz recalled, "There were multiple times when I wasn't sure that we would be able to find common ground."

To prevent gridlock from developing on the board, in 2012, for the first time in a decade, Schultz led board members on a multiday, off-site retreat to develop a vision for the future of D51. As he hoped, the experience encouraged members to put aside politics and, above all else, reinforce their commitment to serving the students in Mesa County. Board members who had previously been at odds built relationships based on their shared concerns. These new relationships encouraged board member Greg Mikolai to introduce the idea of personalized learning as a focus for the district. In an emotional speech to his fellow members, Mikolai recounted the simple, self-paced classroom he remembered from childhood and contrasted his experience to that of his child, a district student with special needs. At present, Mikolai explained, the school district was only taking partial care of his child. But personalized learning could offer every child in the district—including his own—an education that was both fulfilling and useful for the 21st century. "This idea galvanized the board," Mikolai recalled. "Despite the ideological differences, we all became enthusiastic for it. One of the board members, who I had strong ideological differences with, ended up becoming one of the biggest proponents." In a district that had been wracked by budget cuts and partisan division, a new cause had united the board and spurred an ambitious new path.

VISITING LINDSAY

Mesa County's leaders were inspired by Lindsay Unified School District, a leader in personalized learning.

After the retreat, board members were excited about personalized learning but had only a vague idea how to put it into practice. "I had a couple of ideas for what it would look like, but I didn't know everything," Mikolai recounted. But when the Colorado Department of Education invited D51 to take part in a study group on competency-based systems in the 2014–2015 school year, Schultz saw an opportunity to explore how the process worked in other districts. As part of the study group, representatives from D51 visited several districts within and outside Colorado. No visit was as consequential as the one that brought them to Lindsay Unified School District in California's Central Valley.

Lindsay's model of personalized learning⁷ has attracted national attention as the district has shifted entirely from a traditional model of education to a personalized one.⁸ Recognizing the importance of seeing a successful model firsthand and mindful of the need to build a coalition, Schultz sent four representatives to visit Lindsay: the chief academic officer, the head of the teacher's union, and two members of the school board. All four spoke so highly of what they saw that Schultz sent a larger delegation that included a broader group of a dozen stakeholders, including the heads of the local newspaper and the chamber of commerce, as well as Schultz himself. They, too, had a transformational experience. In particular, they noted the individualized student schedules, students' ability to customize their learning experience to their individual styles, and the role of teachers as facilitators rather than instructors. Most of all, the delegation returned with the belief that personalized learning could boost their district's stagnant performance. "We shoot for mediocrity," one school board member explained. "If the school district really pulls this thing together, maybe the rest of the community would begin to believe we can be better. We hear too often about businesses and companies that don't want to come here because of the education system. I wanted us to build a system that we can all take pride in. I wanted to be the district that others come to visit in five years' time."

Throughout the second visit to Lindsay, numerous members of Mesa County's delegation told Schultz that personalized learning must become a reality for Mesa County: some took him aside during a classroom visit, and others announced it emphatically at a group dinner. When Schultz stepped off the plane back in Colorado, two board members told him that D51 needed to begin implementing a similar model of personalized learning by that fall. At this, Schultz's initial excitement turned into apprehension about how he could get it done.

7 "A Day in the Life of a Lindsay Learner!," LUSD Blended Learning Channel, April 10, 2014, https://www.youtube.com/watch?v=X0WV_AA_Kgg.

8 Christina Quattrocchi, "How Lindsay Unified Redesigned Itself From The Ground Up," *EdSurge*, June 17, 2014.

Choosing visitors carefully

Schultz used each visit to Lindsay as an opportunity to build broad-based support across D51 and to strengthen relationships among key stakeholders.

For the first visit, Schultz chose:

- Two members of the **school board**
- The head of the **teacher's association**
- The district's **chief academic officer**

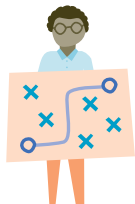
For the board members, he picked two members with opposing political views, and he selected the CAO and the head of the teacher's association as a pragmatic counterbalance to the occasionally idealistic board members. Notably, Schultz chose not to go himself, allowing others to get excited about the potential of personalized learning.

For the second visit to Lindsay, Schultz sent a larger and more diverse delegation to build additional momentum. He invited leaders from local businesses and the newspaper to join him and other district administrators. Mesa County's local businesses employ a considerable number of D51 graduates, so their input would be critical. Similarly, Schultz knew that inviting the main local paper was a risk, but he believed that positive news exposure could help galvanize the effort. Starting with this broad group of stakeholders, Schultz created a strong base of support within the community to help drive the personalized learning effort forward.

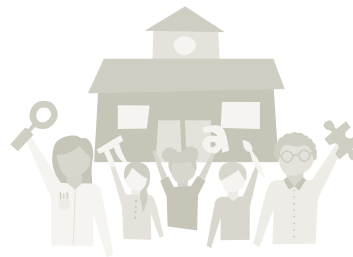
PLANNING



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FULL DISTRICT
IMPLEMENTATION

Inspired by Lindsay, D51 immediately began making plans to bring personalized learning to Mesa County.

With enthusiasm among the board and support from key stakeholders in the community, the district began planning for the 2015–2016 school year.

The first task was to determine an appropriate starting point. Although some of Schultz’s cabinet members suggested starting a new school with a personalized model, others argued that a single school would not attain the scale of impact that the district hoped for. Lessons learned from a single school, they reasoned, would not be applicable to many others across the district. D51’s leaders therefore decided to create a cohort of pilot schools as trailblazers, followed by subsequent cohorts of schools over several years until the entire district adopted personalized learning.

Although the plan was popular, some leaders worried that the term “pilot” suggested an experiment with uncertain results. Because D51 wanted to create a full personalized learning system, Schultz and his team shifted the terminology in a subtle but important way. Rather than implement “pilot schools” for personalized learning during the 2015–2016 school year, D51 would instead create “demonstration schools.” “Demonstration schools are meant to *demonstrate* where they are in the journey,” one district official explained.

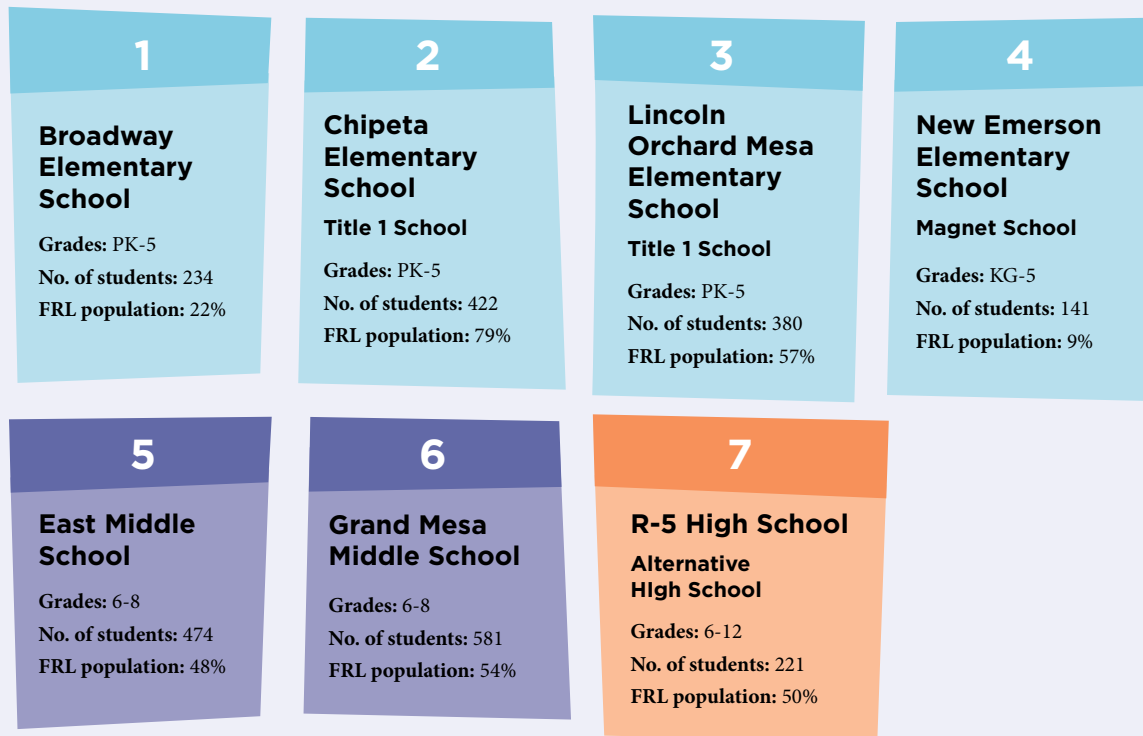
The next step was to decide which schools to place in the first demonstration cohort. “We wanted to be as representative of our district as possible to make sure this could work in any of our schools,” Schultz explained. For each of the seven individual schools, Schultz asked his elementary, middle, and high school-level directors to recruit at least one school that met the following conditions:

1. Has a **willingness to explore new approaches** to education
2. Has **broad support** among staff and parents to become part of the demonstration cohort

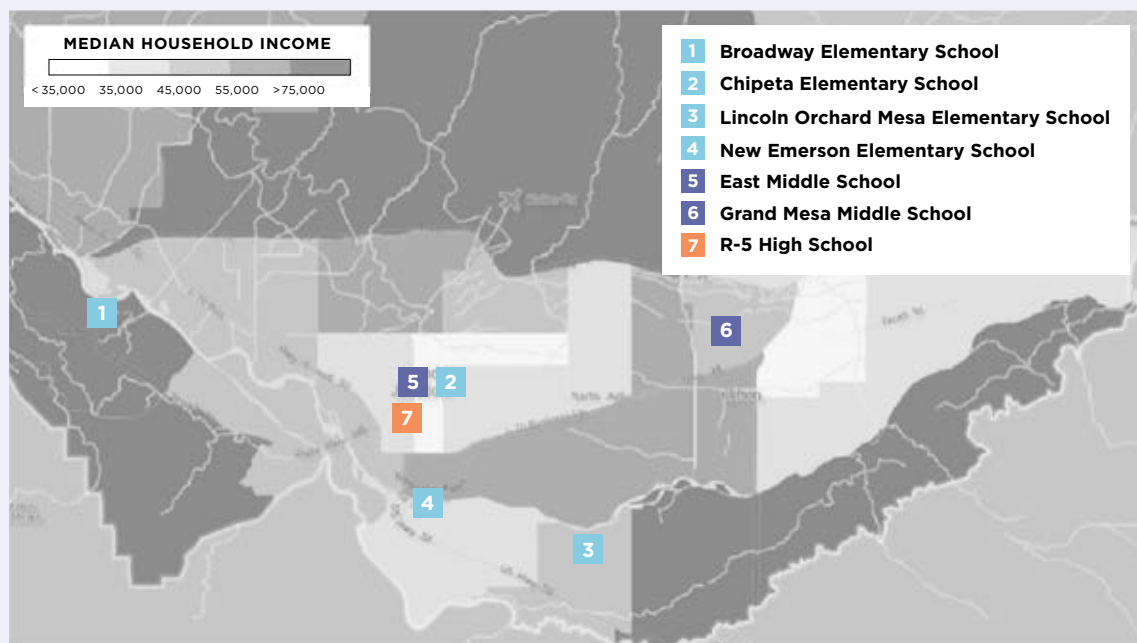
The selection of demonstration schools did largely follow this process. However, cuts to the directors’ budgets and the challenges of planning the upcoming school years—the realities of resource constraints in any school district—made choosing the cohort more opportunistic than Schultz had planned. The district had some initial difficulty finding a willing high school, given the potential implications personalized learning would have for students’ high school transcripts. As a result, D51 eventually recruited the alternative high school R-5. For other schools, the selection process was even less methodical. “There was no selection process. We got phone calls that someone decided we were the risk-takers,” one demonstration school leader recalled.

2015–2016 Demonstration School Cohort

List of Demonstration Schools⁹



Location of Demonstration Schools



⁹ We profile some of these schools later in the case study.

The selected demonstration schools prepared for the school year with considerable excitement, eager to learn about D51's specific vision for personalized learning. Yet the changes also brought some questions and uncertainty. Staff at one demonstration school, New Emerson, drafted a formal letter to the district leadership to ask, "When will professional development take place?" and "Will there be a grace period for schools and educators making the changes regarding the aforementioned educator accountability systems?" (The full letter, with all questions asked by New Emerson's staff, can be found in the Appendix.)

To answer these questions and provide additional coaching and support to the demonstration schools, Schultz considered hiring outside consultants but realized that he could hire full-time staff on a similar budget. Looking for someone who could hit the ground running and with no time for a broad search, Schultz recruited Rebecca Midles, the Performance Based System Specialist at Lindsay Unified in California. Midles had had a long career in education, having worked first as an assistant principal at Highland Tech High School in Anchorage, then as an educational consultant in districts across the county, and most recently as the Performance Based System Specialist at Lindsay Unified. There, she had helped arrange D51's visits and had kept in regular contact with Schultz. Excited to guide a larger district toward a personalized learning model, she agreed to begin in the late summer of 2015.

Working with Partners

Given D51's tight budget, Schultz was always on the lookout for opportunities for outside support. Over the course of the district's journey, D51 has benefited from multiple partnerships, including those that follow.

Colorado Education Initiative (CEI): CEI is a Denver-based nonprofit that works with the Colorado Department of Education to target resources to incubate innovative ideas, arm educators with effective tools, identify proof points, and support promising practices in schools across Colorado.

Colorado Department of Education (CDE): The CDE invited D51 to be part of a study group on competency-based systems, providing Mesa and other districts across Colorado the opportunity to visit other school districts inside and outside the state.

D51 Foundation (D51F): D51F is a local foundation that raises funds for strategic investments within the D51. For the past three years, the foundation's funding priorities have been purchasing technology for students and supporting professional development for teachers.

Gates Family Foundation: The Gates Family Foundation is a Denver-based family foundation focused on self-sufficiency, excellence, and innovation in Colorado communities. The Foundation made a three-year, \$300,000 grant to D51 to support professional development for teachers and school leaders.

Great Schools Partnership (GSP): Based in Portland, Maine, GSP is a nonprofit that supports schools, districts, organizations, and government agencies to provide coaching, professional development, and technical assistance. GSP provided professional development to a study group on competency-based systems, organized by the CDE and funded by the Colorado Education Initiative (CEI).

KnowledgeWorks: KnowledgeWorks is a national organization that develops the capabilities of educators to implement and sustain competency-based and early college schools; partners with federal, state, and district leaders to remove policy barriers that inhibit the growth of personalized learning; and provides national thought leadership around the future of learning. KnowledgeWorks has provided D51 with coaching to district leaders and content facilitators. KnowledgeWorks has also supported D51 to create a district communications strategy and to advise on grading systems for D51's high schools.

Lindsay Unified School District: Over several visits, D51 sent board members, district officials, school leaders, educators, and community members to learn from Lindsay's experiences with personalized education. Lindsay became a primary inspiration for D51.

REFINING A ROADMAP

With Midles on staff, D51 created a broad implementation plan, which helped align expectations and give schools across the district insight into the long-term plans.

Once on board, Midles quickly became familiar with Schultz’s plans for personalized learning and with the challenges the district faced. She wasn’t surprised at D51’s predicament. Although the district was inspired and committed, she found staff members did not fully grasp the length or scope of the journey they were undertaking. Midles’s experience taught her that her main value would be to help D51 understand that journey and act as a guide. As Leigh Grasso succinctly explained “D51 had the will; Rebecca brought the skill.”

In considering the size of the district and the scope of their ambitions, D51’s leadership knew that making a system-wide shift to personalized learning would entail more than adopting a particular model or suite of software. Recognizing this, they decided to start with facilitating underlying shifts to mindset and culture across the district, follow that by building up instructional practice, and only then gradually layer on competency-based and personalized learning. This was a marked contrast to—even an inversion of—how many other districts had approached personalized learning, but the D51 team trusted Midles’ experience from previous districts that this would be a multi-year journey, and that, without a strong foundation of mindset and culture, the whole enterprise could crumble.

“Personalized learning can and does already happen in pockets,” Midles explained, “but we wanted to have personalized learning as a system.” To achieve this goal, D51 leadership believed that professional development practices, assessment tools, and even the district’s organizational structure would need to change. They distilled this change process into a five-phase framework to share with schools, starting with shifting mindsets. “When we decided to focus on the entire system, we knew we had to reshape everyone’s thinking,” Schultz explained. “By focusing on growth mindset up front in the change process, we set the stage to do so.” The five phases shared with schools are detailed below.

D51 Implementation Phases



- 1. Laying the Foundation:** “We need to build the foundations at the district level before moving forward,” Midles remarked. These foundational pieces include creating a common sense of purpose and a definition of personalized learning across the district, inculcating a shared understanding of the upcoming journey, and restructuring teams in the district central office. Most important, building the foundation required building a growth mindset culture for students as well as teachers to be better prepared as a system to understand, appreciate, and grow into personalized learning in the years to come.
- 2. Supporting Effective Practices:** Next, the district supported specific teaching practices necessary for personalized learning. This was accomplished through professional development outlining clear expectations for student outcomes and by developing a framework to guide quality teaching. At the end of the 2016–2017 school year, most schools in D51 were in this phase of work.
- 3. Building Performance-Based Learning:** Once these effective practices are in place, D51 plans to be a district where the expectations for students are transparent and where students progress based on demonstrated mastery (i.e., performance).
- 4. Beginning Personalized Learning:** D51 envisions personalized learning as a complete and coherent system rather than only a practice in a classroom. As a result, D51 considers personalized learning a separate and subsequent step—one where students not only demonstrate mastery and are the architects of their own learning experiences but also are supported by mutually reinforcing school- and district-level systems including grading, scheduling, and teacher professional development.
- 5. Refining Our System:** D51 envisions its personalized learning system to be dynamic and so plans for constant course-corrections.

District leaders organized a roadshow to communicate this vision. “We went to every school,” Midles recalled, “and we talked about ‘what is personalized learning?’ and about the phases of implementation. We talked about the why, about the need, about how the future is changing, and about how school the way we experienced it will not be enough.”

In talking about personalized learning, the district’s leaders stressed two key aspects of the plan:

First, district leaders presented the phases as guidelines, not as strict rules, for schools to follow. “They explained that there was no right or wrong answer, and that we would be doing this by working together,” one demonstration school leader recalled. D51 also provided goals for each phase in the transformation, again largely as a guide.

Second, district leaders made clear that schools would proceed at their own pace, but that there were minimum expectations for all students' experiences. To encourage ownership, the leadership team framed goals for the schools to strive for in the form of questions. "We ended our presentations on the roadshow with the four questions that any child in the system should be able to answer once we were really implementing personalized learning," explained Midles. These four questions were:

1. Do I feel safe and supported, and do I have a voice?
2. Do I know what I'm working on and why?
3. How will I know if I have learned?
4. If I did not meet an expectation, what options do I have to move forward?

Schools found the roadshow helpful in understanding the district's direction, where their work would lead, and the stages of implementation to get there. Perhaps just as important as what the district leadership communicated during this roadshow was what they did not promise. Though the district provided high-level guidance through the roadshow, D51 leaders were transparent that they would not have all the answers for how the journey would unfold, what it would entail, or exactly where it would end. "This is second-order change. There is no way you can know all of that up front," Schultz remarked. Instead, D51 invited schools to "live in the ambiguity" that the transformation would entail, with district leadership learning beside them along the way.

Goals for "Building Performance-Based Learning"

AT THE DISTRICT LEVEL

IN THE LEARNING ENVIRONMENTS

Instructional practices and structures are driven by the vision	Guides the creation of a learner- centered- environment
PL for a learner-centered classroom with transparent expectations	Transparent rubrics are accessible to learners and are learner friendly
Social & Emotional Learning is embedded into curriculum exemplars and the system	Instills a Growth Minded culture
Social & Emotional Learning resources are accessible	Social & Emotional Learning Skills are taught, measured, and celebrated (reporting)
Aligned PL system to reinforce personalized learning as a system	Learning Communities are driven by student data and needs
PL structures, such as schedules, reflect and support a PBL System	Students are beginning to co-produce learning opportunities
Training for learner data cycles	Empowers learners with transparency of expectations to begin to own their learning
Training for personalization in a PBL System	Systems in place to support <i>self-directed learning</i>

Holacracy

Steve Schultz understood that distributed leadership would be critical to enabling the transformation of D51 to personalized learning. This conviction underlay his decision to send multiple groups to visit Lindsay and to hire Rebecca Midles. Yet as Schultz and his staff began to lay the groundwork, he realized that major district-wide changes would have to be made at a rapid pace, and that the lines of responsibility were not always clear. To create a streamlined administrative process, Schultz adopted an organizational structure called “**Holacracy**,” most famously used by the company **Zappos**. In the holacratic model:

- Teams and groups are arranged around function rather than hierarchy. For example, a School Leadership Support Team provided direct support to school leaders, a function that had previously been scattered across multiple teams based on the type of support provided.
- Meeting agendas are established by all participants at the start of a meeting, not set beforehand by a subset of attendees.
- Meetings are divided into two distinct categories: tactical and governance. Tactical meetings focus on the group’s overall objectives or strategy; governance meetings allow participants to discuss specific responsibilities.

The holacratic method leads to a clearer understanding of the purpose and protocols of meetings and staff responsibilities. In addition, these methods helped the transition to personalized learning because the restructuring of roles and meeting protocols occurred just as implementation began, putting personalized learning front and center. For example, the Learning System Design Team was created to directly lead the transition to personalized learning.

*Read more about Holacracy at D51 in Chris Sturgis’s [blog](#) in *CompetencyWorks*.*

This approach of co-discovering the practices and processes for personalized learning with the district resonated with many schools. However, it differed from their original conception of the change process: Rather than straightforward implementation, this process would require considerable exploration and experimentation on the part of the schools. Further, resource scarcity at the district level meant that schools would embark on this quest with limited hands-on support from the district. Many schools in the district prepared for a transformation process that would be more intensive than they had originally anticipated.

DEMONSTRATION SCHOOLS



BUILDING
CONSENSUS



PLANNING



DEMONSTRATION
SCHOOLS



FULL DISTRICT
IMPLEMENTATION

In the 2015-2016 school year, demonstration schools began making changes in practice, most notably with an intentional and concerted effort to shift the mindsets necessary for personalized learning among teachers and students.

GROWTH MINDSET

The D51 leadership team worked with the demonstration schools to create a growth mindset culture—a critical foundation to personalized learning.

From her previous experience, Midles knew that personalized learning was much more than a classroom-level model for education. Rather, it represented a fundamentally different approach to teaching and learning. “When we’re doing such dramatic change, the learners—and the adults—in the system need to be willing to embrace it,” Midles explained. “They need to be part of building the change, to understand the *why* and help build the *how*.” To enable this, the D51 leadership focused first on creating a culture of growth mindset throughout the district. The term “growth mindset,” developed by Stanford psychologist Carol Dweck, refers to the orientation of people who believe that success is the result of hard work and learning.¹⁰ Dweck argues that attitudes toward success exist on a continuum between the “growth mindset” and the “fixed mindset,” which suggests that success or failure result from innate, and unchangeable, ability. While many educators emphasize developing growth mindset with their students, D51 has approached growth mindset as the glue that holds both student and adult work together. In Midles’s view, growth enables personalized learning in the following ways:

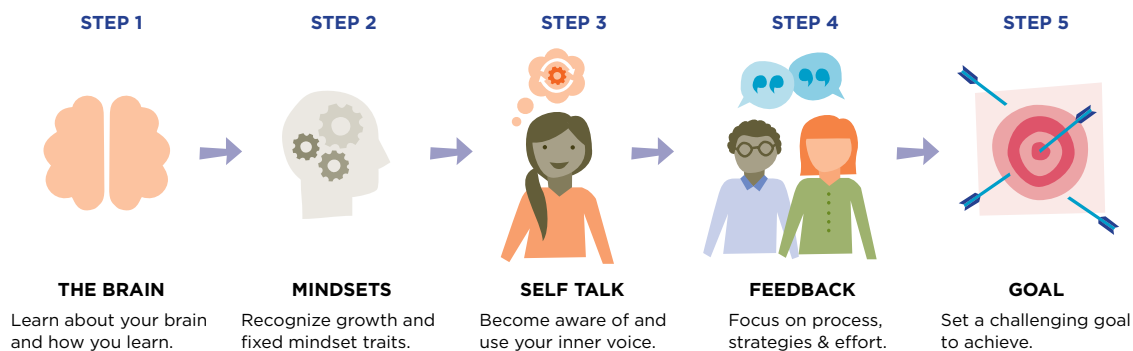
¹⁰ Carol Dweck, “What Is Mindset?” <https://mindsetonline.com/whatisit/about/index.html>.

1. Learning about growth mindset helps students **focus on their own thinking and behavior**. One important element of this behavior is the way in which students either embrace or reject difficult challenges. In personalized learning, “if students don’t know how to change how they talk to themselves, they’re not going to change behavior,” Midles remarked.
2. A growth mindset helps students **become more aware of what they understand**, as well as what they don’t. “Growth mindset helps lay the groundwork for transparency and expectations,” Midles explains. This awareness is critical for a personalized system that is based on performance and self-direction, since it allows students to understand where they still need to grow and develop.
3. Developing a culture rooted in growth mindset helps teachers **understand how to give constructive feedback** that helps students improve in an environment where they have a larger role in directing their learning.
4. Once students actively set goals in a personalized learning model (and the performance-based model that precedes it at D51), feedback to students with a growth mindset helps them **establish more ambitious goals** for their own learning.

To help D51’s demonstration schools embed a growth mindset in their culture, the district’s professional development days in the fall of 2015 were dedicated to the concept. To ensure strong engagement and stay true to the ideals of personalized learning, D51 staff tailored presentations to each school, framing growth mindset as a way to deepen the school’s existing work, rather than replacing it with a new district initiative.

Nurturing a growth mindset culture in each school was a multi-step process, which Midles illustrated in a staged framework for teachers and school leaders:

Five Steps of a Growth Mindset Culture



More information about this framework, as well as how D51 rolled it out in the district, can be found in Appendix B.

To complement the focus on growth mindset, D51 had previously introduced Art Costa’s 16 “Habits of Mind”¹¹ as a powerful tool to build the social and emotional skills they wanted in their graduates.

11 “What is Habits of Mind?” The Art Costa Centre for Thinking,
<http://www.artcostacentre.com/html/habits.htm>.

These habits include “persisting,” “managing impulsivity,” and “thinking interdependently.” District leaders gave schools considerable flexibility to incorporate Habits of Mind into the classroom and, importantly, did not immediately embed them into student evaluation. Many of the demonstration schools took creative approaches, such as developing “Habits of Mind calendars” that encouraged students to improve upon a single habit of mind each day. Over time, the district emphasized the natural connections between their Habits of Mind work and instilling growth mindset, and often addressed both topics in tandem.

HONING THE VISION, WITH COMMUNITY INPUT

As demonstration schools made early changes in the 2015–2016 school year, D51 underwent a comprehensive community input process to create a district-wide vision for learning.

Schultz believed strongly in the importance of community involvement in D51’s transformation to personalized learning. While he had extended invitations for some local leaders to visit Lindsay, he had not yet fully engaged the community as a whole, including parents. “We wanted to go deeply into the community,” Schultz remarked, “and we wanted to be authentic.” He and his team took advantage of an opportunity extended by the Colorado Education Initiative (CEI), which, in partnership with The Learning Accelerator and the Colorado Department of Education (CDE), had created a model for community collaboration¹² and was looking for districts to serve as pilots.

Using this model, D51 leadership worked with Colorado Mesa University (CMU) to train facilitators to gather input from the community and to build trust and ensure that everyone could speak honestly. They held a series of meetings that were open to all but especially targeted to parents of D51 students and to historically underrepresented groups.¹³ The facilitators conducted conversations that were intentionally broad in scope, focused on questions such as “How has the world changed in 30 years?” and “What skills will the future workforce require?” To incorporate even more community voices, D51 also surveyed more than 1,000 community members. In the end, the community’s input resulted in a “graduate profile” to help guide D51’s future work.

“It was quite a surprise to me,” Schultz remarked, “but everyone in the community seemed to zero in on kids needing to learn to work in groups and gain other 21st-century skills.” Parents overwhelmingly wanted their children to become technologically and financially literate, adaptable, and appreciative of cultural diversity (see full list in Appendix C). These 21st-century goals were closely aligned to D51’s emerging commitment to personalized learning, reinforcing the district’s vision while adding new depth and urgency.

12 “Community Collaboration for School: Innovation Toolkit,” Colorado Education Initiative (CEI) in partnership with The Learning Accelerator and Colorado Department of Education, <http://learningaccelerator.org/media/060868b2/COCommunityCollaborationToolkit.pdf>.

13 Representatives from the following organizations were included in the visioning process: District 51 Minority Advisory Committee, Western Slope Latino Chamber, Latin Anglo Alliance, Riverside Task Force, and the Hispanic Affairs Project.

EVOLUTION OF THE DEMONSTRATION SCHOOLS

As the demonstration schools made further changes later in the 2015–2016 school year, variation in implementation approaches emerged.

In the 2015-2016 school year, D51 provided the following support to demonstration schools:

- The roadshow that explained the phases of implementation and overall guidance for the district's transformation to personalized learning
- A site visit by each demonstration school leader and one teacher to Lindsay Unified
- Regular coaching for teachers and school leaders during professional development days
- Facilitation of a community of practice for site leaders to engage in discussions and site visits with their peers
- Occasional on-demand thought partnership and coaching

The district's ability to provide these supports was limited by resource constraints. For example, high schools in Mesa County only had 1.5 professional development days per year (elementary and middle schools had four and six days, respectively), and demonstration schools received no funding for additional days of professional development. But D51's light touch in supporting schools was also in part intentional. The district believed that each school would learn best by working through many of the changes themselves.

As a result, most of the demonstration schools began their work in the first phase of “laying the foundation” by becoming conversant in growth mindset and the Habits of Mind while retaining a largely traditional model. D51 leaders maintained that this approach was perfectly acceptable in a district-wide effort. “The demonstration schools were in different places,” Midles explained. “Most schools find it challenging to just flip a switch and implement performance-based learning because there tend to be gaps in readiness. Schools will invariably have different strengths and different challenges, which is why this is a framework approach and models at a system level what we believe to be best about learning—personalization.”

However, not all schools took such a modest approach. Two teachers at East Middle School, for example, had visited Lindsay and felt compelled to create a competency-based model in their classrooms, so constructed performance charts that displayed each student's performance on several competencies. Principal Don Trujillo of R-5 High School went even further. Students at R-5 had been taught the nature and importance of the Habits of Mind, and each also had a weekly “Habits of Mind” goal (e.g., “this week I will manage my impulsivity”). One morning a few weeks before the start of the 2015–2016 school year, Trujillo tossed every teacher's desk into the dumpster. “Teachers need to be out and about; they need to be ‘watching the game,’” Trujillo remarked. “When they're at their desks, they're too removed from the students they are supposed to serve.” Trujillo also pushed R-5 to adopt a more self-directed educational model, where students move through different stations according to their needs, which they refine weekly with a teacher. The types of stations at which

students work varied greatly: R-5 had many options for students to learn academic skills, through tutoring in a small group to working independently on computers. Students also obtained technical experience through repairing bicycles, learning to manage compost, or building a greenhouse.

Many of those efforts to move faster than the district's recommendations led to challenges as well as progress. At R-5, more than a quarter of the teaching staff quit following Trujillo's quick changes. At East Middle School, students interpreted the performance charts as a public exposure of their aptitude. Their anxiety made it difficult for their teachers to instill the flexible and open mindsets necessary for personalized learning. Reflecting on the experience, one teacher noted: "I jumped in more quickly than probably would have been prudent, making a lot of early mistakes and misinterpreting what personalized learning really was at its heart. It turned out we needed more time for some of the invisible things like the mindset of the students." While these missteps created temporary growing pains, the district recognized them as a necessary consequence of innovation and continued to support the demonstration schools to recover and learn from these experiences.

In a district of more than 20,000 students and 1,200 teachers, D51 leaders understood variation in the implementation of personalized learning as not just inevitable but also necessary. While the measures by which D51 standardized personalized learning across the district are explained in the following section, a level of variation across schools allowed the schools to embed personalized learning in ways that resonated most with each school's unique culture and background.

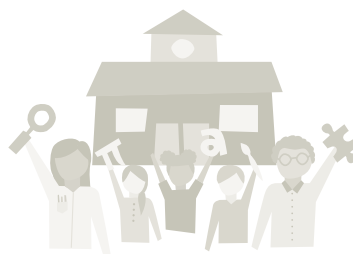
FULL DISTRICT IMPLEMENTATION (2016–2017)



**BUILDING
CONSENSUS**



PLANNING



**DEMONSTRATION
SCHOOLS**

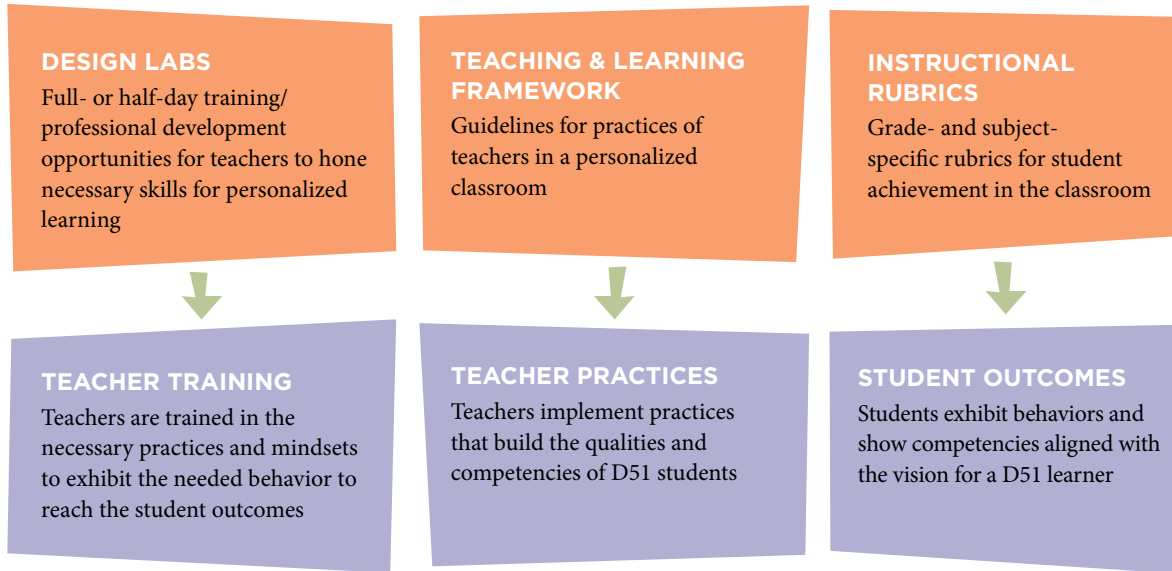


**FULL DISTRICT
IMPLEMENTATION**

After one year with seven demonstration schools, Mesa County spread personalized learning across all schools in the district.

The district's decision to adopt personalized learning received a great deal of publicity in the community, from the high-profile visits to Lindsay and the district's visioning process to numerous local newspaper articles about demonstration schools. As the 2015–2016 school year continued, the buzz began to spread. Numerous school leaders expressed interest in having their school become a demonstration school, raising the tricky question of how many schools the district would support in Year 2. "They all wanted in!" Midles reflected. "It was a good problem to have. But we couldn't support them like we did the demonstration schools the year before." Eventually, district leaders decided to support all schools in moving to personalized learning approaches. "If there was interest from a school, we felt we couldn't *not* support them," Midles recalled. Nonetheless, D51 was clear-eyed about the many challenges that a district of D51's size would encounter, including funding, the limited number of professional development days, and the pitfalls that many schools might encounter in the process. But D51 knew that commitment from school leaders was vital to personalized learning and so took the calculated risk of implementing personalized learning practices throughout the entire district the following year.

After considering how best to support change across the entire D51 system, district leaders developed a three-legged stool of supports. The district would use *instructional rubrics* to define expected student outcomes, a *teaching and learning framework* to adapt instructional practice, and *design labs* to train teachers in new skills and mindsets. As Schultz explained, "Creating these structures—the instructional rubrics, the teaching and learning framework, and the teacher training platforms—were foundational to being systemic." They also enabled D51 to shift systems on a limited budget. Schultz continued, "These structures were specific instructional shifts that actually allowed us to better align the limited resources we had. The teaching and learning framework, for example, allowed us to gradually release the implementation of personalized learning to teachers." Details about each of these three supports follow.



1. INSTRUCTIONAL RUBRICS

Expanding personalized learning across the entire district required common standards. “We created rubrics to build expectations for our students,” reflected Grasso. While these rubrics laid out clear expectations of student growth and progress, creating them was no easy task. “We wanted to get a lot of teachers involved in the rubric development process to be more transparent. We opened it to any teacher who wanted to get involved. We worked all year long on it and allowed teachers to pilot rubrics in their classrooms. When it was all said and done, we had over 160 teachers involved in the process. That sure felt like a lot!” Grasso recalls.

Sample Instructional Rubric

SUBJECT: SOCIAL STUDIES LEVEL 3

History develops moral understanding, defines identity, and creates an appreciation of how things change while building skills in judgement and decision-making. History enhances the ability to read varied sources and develop the skills to analyze, interpret, and communicate.

History 3.1.1: Use a variety of sources to distinguish historical fact from fiction

D51 STANDARD	DEVELOPING		REFINING	
	1 EMERGING	2 PROGRESSING	3 MASTERING	4 INNOVATING
PREPARED GRADUATE: Develop an understanding of how people view, construct, and interpret history	Demonstrating initial understanding of the standard	Practicing and adjusting some elements of the standard	Performing the complexities of the standard	Articulating the transfer of the complexities of the standard in a novel manner
	Recognize the difference between fact and fiction in historical resources	Distinguish fact from fiction using multiple historical resources	Compare historical information from a variety of resources, including fiction and nonfiction, that recount the same event or topic to define factual historical evidence	Analyze a fictional account of an historical event to uncover the factual and fictional elements

2. TEACHING AND LEARNING FRAMEWORK

“If the rubrics helped build expectation for student outcomes, the Teaching and Learning Framework is intended to do the same for the commensurate teacher practices,” Grasso explained. “We couldn’t just float a different rubric to teachers without identifying the practices we wanted of them. This approach is critical to move toward a personalized learning system.”

D51 worked closely with teachers for over a year to develop the framework, both to solicit ideas and ensure ownership. The majority of the framework was dedicated to key “Guiding Questions” that asked teachers to reflect on their current and future classroom practices. Importantly, these questions were intended to help teachers consider their work honestly and openly, and not to be evaluative. District leaders emphasized with school leadership that the teachers would be trained to use the form for regular reflection and growth, and not for evaluation.

D51’s Teaching and Learning Framework

One dimension is listed below; the complete framework can be found in Appendix D.

DIMENSION	SUB-DIMENSION	PURPOSE	GUIDING QUESTIONS
PROFESSIONAL ENGAGEMENT	REFLECTIVE PRACTITIONER (Myself)	<ul style="list-style-type: none"> I reflect and monitor my professional practices by setting and refining goals over time. I seek opportunities for professional growth. I respond to the growth and needs of my learners. 	<ol style="list-style-type: none"> In what ways do I gather information about each learner’s growth and needs and then make instructional changes? How will I measure the impact of the instructional changes I implemented? What support do I need to grow as a practitioner? How do I employ my growth mindset to support continuous improvement? In what ways do I use student, peer, and evaluator feedback to improve my practice?
	LEARNING COMMUNITIES (My Team and I)	<ul style="list-style-type: none"> Our Learning Community values collaboration and offers support for growth within our team. Our Learning Community develops a goal focus and action plans to affect student and teacher learning. 	<ol style="list-style-type: none"> How do we interact within our Learning Communities? How do we develop and monitor our action plans? In what ways do we reach out for support? How do we influence one another’s thinking, learning, and practice?
	LEARNING SYSTEM PRACTITIONER (Our Commitment to Each Other)	<ul style="list-style-type: none"> We value adult learning as much as student learning. We pursue our vision and goals through continuous improvement of people and processes guided by the Teaching and Learning Framework. We honor, value, and celebrate risk-taking. 	<ol style="list-style-type: none"> What are the contributions I make to our learning system? How do I conduct myself as a professional? How do I remain open to continuous learning for myself and others?

3. DESIGN LABS

D51 re-structured its professional development to help teachers master the practices in the Teaching and Learning Framework. As it did in the 2015–2016 school year, D51 continued to coordinate learning communities among school leaders to exchange ideas that would further personalized learning. In addition, the district created half- and full-day “design labs” where teachers worked intensively on one of five topics, organized by three main themes:



To facilitate these labs, the district trained 15 district teachers who were placed on special assignment to become Learning Support Specialists (LSS). Teachers conducted a self-assessment to determine which Design Lab they would participate in, and more than 500 teachers across the district participated in clustered Design Lab sessions. To make the labs successful, the specialists aimed to “meet teachers where they were” and modeled behaviors that they hoped teachers would then replicate in their classrooms. As one teacher remarked, “Before, the training was done to us. Now, we are all growing together.” At the district level, the Design Labs allowed D51 to deliver teacher professional development at scale and within a limited budget. “Because we had so little professional development time, we wanted to maximize every single minute. The Design Labs are one of the best ways to leverage district-level change.” Grasso explained.

PERSONALIZED LEARNING AT THE SCHOOL LEVEL

The following stories outline how two different D51 elementary schools—New Emerson and Lincoln Orchard Mesa—began their transformation to personalized learning.

LEARNING AT NEW EMERSON

As a magnet school with a strong culture and reputation, New Emerson took an engaged and proactive approach to personalized learning, with a particular emphasis on growth mindset.



New Emerson Elementary School

Magnet School

Grades: KG-5

No. of students: 141

FRL population: 9%

New Emerson is a magnet school located south of downtown Grand Junction, close to the confluence of the Colorado and Gunnison rivers. Nine percent of the school's students are eligible for free- or reduced-lunch, far fewer than the county average. New Emerson is known for its strong academic track record. Terry Schmalz, who leads New Emerson, is trusted deeply by parents and her teachers. She attributes a significant part of New Emerson's success to the strong culture among school staff. New Emerson began

as a single-classroom school, growing only one classroom (and one grade level) each year. This slow growth allowed Schmalz to build strong relationships with each new teacher she hired.

New Emerson's strong culture shaped the school's journey into personalized learning. When district leaders asked Schmalz in the spring of 2014 if she wished to become a demonstration school, Emerson teachers quickly researched personalized learning and jointly filed a letter to the district with a long list of questions about the planned transformation. (See "Demonstration Schools" section of this case study.) Still, interest was strong. New Emerson agreed to join the demonstration cohort, and Schmalz and one teacher visited Lindsay Unified late in the spring.

In California, Schmalz and her colleague took extensive notes, and upon their return crafted a detailed presentation outlining what they learned. School leaders were most intrigued by Lindsay's focus on social and emotional learning, which Schmalz felt New Emerson lacked. For New Emerson, adopting personalized learning led to a new visioning process that engaged not only teaching staff but also parents and students.

In subsequent planning meetings with New Emerson’s teachers, Schmalz identified similarities and differences between her school and Lindsay’s model. New Emerson had already made small changes and had long been philosophically aligned with the ideas of differentiated learning. That emphasis helped teachers understand the relevance of Lindsay’s model. “A lot of it was things that we’ve always done; this was just doing it with a bit more emphasis,” one teacher explained.

Like other demonstration schools in D51, New Emerson began with growth mindset and the Habits of Mind. Teachers studied “The Motivated Brain” by Gayle Gregory and several videos about the brain, which they used to explain the concept to their students.¹⁴ The most useful tool for communicating the concepts of growth mindset, Schmalz found, was a simple activity she devised during a campus-wide assembly on the power of the word “yet.” “Yet” has a particular importance in demonstrating a growth mindset: with a fixed mindset, a student might say “I can’t add fractions.” A student with a growth mindset, on the other hand, would say “I can’t add fractions, yet.” Schmalz illustrated this distinction by writing “YET” on a large beige-colored chalkboard. At the end of the assembly, Schmalz gave each student a rock in the same color as the chalkboard and asked them to keep these “yet rocks” with them. Afterwards, students regularly began using “yet” when describing their own performance, and even began regularly correcting one another when using fixed-mindset language without “yet.”

As students and teachers became more familiar with the topics of the brain, growth mindset, and the Habits of Mind, Schmalz conducted an online survey to measure their placement on the continuum from growth to fixed mindset. While most teachers and students expected to fall squarely on the side of growth mindset, the results showed that many still retained fixed mindsets in certain ways. This finding helped both teachers and students understand the importance of regularly practicing a growth mindset.

In the middle of the 2015–2016 school year, teachers also began working with students to set learning goals. Each week, students set a goal that outlined what they hoped to accomplish that week. With students better able to articulate what they understood—and what they were still hoping to learn—this goal-setting built on their emerging understanding of growth mindset. Weekly goals allowed students to talk about their hopes for learning skills and concepts that they had not yet mastered.

In parallel, teachers created guidelines to measure students’ progress toward those goals. The district had recently launched its instructional rubrics, so New Emerson aligned its emerging guidelines with the district’s in-progress rubrics, creating a four-point scale for each goal.

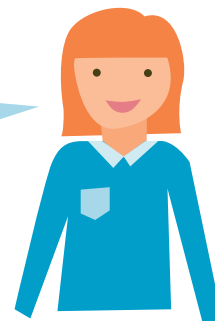
1. I am ready to **start** this learning journey.
2. I’m **progressing** toward the goal but still have concepts to master.
3. I have **met** the goal.
4. I have **surpassed** the goal, going above and beyond.

¹⁴ Gayle Gregory and Martha Kaufeldt, *The Motivated Brain: Improving Student Attention, Engagement, and Perseverance* (Alexandria, Virginia: ASCD, 2015).

Over the next year, New Emerson's teachers increasingly used these metrics to assess students' learning. After beginning with weekly goals, teachers soon began rating students' mastery on multiple subjects in the classrooms (e.g., subtracting double digit numbers from each other). Teachers even gave students binders to keep all of their data, further helping students understand and take ownership of their own progress. By the end of the 2016–2017 school year, many students at New Emerson could readily explain where they had shown mastery and where they were still progressing. Students had improved their social and emotional skills, too: Visitors at New Emerson are welcomed to each classroom by two "greeters" who provide them with a tour of the classroom and explain how growth mindset is used. Students are eager to show off their data binders and explain their progress.

Given the strides of the last two years, New Emerson's staff and parents are quite happy with the progress they have made. "I know the kids have learned a lot, and I had more fun teaching than I ever have. Kids' engagement is through the roof. Teacher satisfaction is through the roof," said one teacher. One parent spoke passionately about the increased engagement she has seen in her son.

"My son has never quite fit in. He read 14 books on his own last year, and that was like torture. This year he's read 50. I think it's because he's so connected with his teacher and so engaged with class that it just makes him want to do the work. Last night, he told me: "Mom, I can't believe how much I've learned this year. I looked at my data notebook today and I have learned so much. It is incredible." I told him, "Yes, it is, son."



New Emerson's staff attributes this success to a variety of factors. The school's close-knit staff culture helped it begin the transformation process thoughtfully and intentionally, and the staff's willingness to make changes even with minimal guidance or support from the district also played a critical role. Nonetheless, New Emerson staff members were careful not to move too quickly and made sure to gather input and commitment from staff and parents along the way. Finally, with a four-day school week, New Emerson dedicated time for professional development each Friday, allowing teachers to discuss progress, challenges, and next steps in the personalized learning journey.

New Emerson's journey is not over, of course. Looking ahead, Schmalz and her staff are planning several other changes to advance their personalized learning journey, including additional ways for teachers to gather more data on student performance. Schmalz and her staff also hope to find better ways to integrate the district's new learning management system, Schoology, into New Emerson's emerging model.

LEARNING AT LINCOLN ORCHARD MESA

Lincoln Orchard Mesa re-aligned expectations for the journey to personalized learning in order to embed the Habits of Mind in the classroom.



Lincoln Orchard Mesa Elementary School

Title 1 School

Grades: PK-5

No. of students: 380

FRL population: 57%

Lincoln Orchard Mesa (LOM) is a Title 1 elementary school on the Colorado River near the southern end of Grand Junction. LOM is headed by Leia Kraeuter, a frank and enthusiastic principal who joined the school in 2013. Kraeuter was among the first school leaders to opt into personalized learning as a demonstration school in Mesa County. In many ways, LOM was an unlikely school to volunteer for such a significant change. As late as 2014, it had used the Treasures Curriculum, which Kraeuter considered “very prescriptive.” Moving from such a curriculum to performance-based learning would be a substantial undertaking.

In the late spring of 2015, Superintendent Schultz contacted Kraeuter to gauge her interest, and after a follow-up conversation with LOM’s teachers, the staff voted to become a demonstration school. In May, Kraeuter, LOM’s instructional coach (a position LOM had due to its Title 1 status), and a kindergarten teacher visited Lindsay, which they described as an “educational utopia.” They were especially impressed by the awareness of Lindsay’s staff: how they shared a common goal and knew where they stood relative to that goal. Kraeuter was excited to change LOM’s practices in Lindsay’s mold. Many of LOM’s teachers, hearing about the success of Lindsay, were equally excited to jump head-first into performance-based learning.

Once the 2015–2016 school year began, however, LOM encountered unexpected challenges. When Kraeuter learned in July that the district had few specific resources to help her and the other demonstration school leaders, she realized that she would need to take considerable initiative to make the year a success. Kraeuter tried to set realistic expectations among her staff, but this dampened some of the enthusiasm for personalized learning at the start of the year.

With thin resources, Kraeuter started by focusing on LOM’s teachers, knowing that increasing their comfort with personalized learning would carry over to changes for students. She gave each teacher a copy of Carol Dweck’s *Mindset* and Art Costa’s *Habits of Mind* to start a conversation about growth mindset and the Habits of Mind. During planning periods, she hosted workshops to help teachers use growth-oriented language (e.g., “I can’t yet,” instead of “I can’t”).

While teachers learned to make these changes, many wondered how they would be used and felt they lacked clear teaching goals. To address these concerns, Kraeuter decided to engage her teaching staff in a visioning process. Through an extensive process that involved every teacher in the building over three months, Kraeuter worked to make all teachers feel included in the school’s new direction.

As school leaders focused on developing the growth mindset culture, the Habits of Mind, and a school-wide vision, some teachers grew even more ambitious. Several elected to make additional changes in their classrooms (e.g., scoring student competencies and posting them on the classroom walls). Kraeuter shared their excitement, encouraging and often working with them to brainstorm, refine, or implement changes. Other teachers, however, were not ready to move without further direction from the district. Those who were uncomfortable making classroom-level changes felt estranged when they saw their principal work so closely with the teachers who embraced the new practices. As Kraeuter later observed, “I was just like, ‘anybody who’s ready to run as fast as me, let’s go.’ I realized later that I created this unintentional culture of ‘haves’ and ‘have nots.’ I also needed to bring along teachers that weren’t moving. That was hard, I felt like I was trying to save people without a lifeboat.” Many teachers were frustrated, and 10 staff members left LOM at the end of the 2015–2016 year.

Kraeuter learned from that first year. She began the 2016–2017 year focused on ensuring that all staff were committed to the upcoming changes to personalized learning and felt supported. She also spent considerable time with all new staff members to understand their professional development priorities and comfort with personalized learning. These decisions paved the way for more substantive classroom-level changes. Guided by Kraeuter’s carefully paced, intentional effort, teachers at LOM made two substantial changes: First, LOM designed flexible learning environments to allow students with different learning preferences to learn well in the classroom. To encourage students to be more collaborative and expressive, teachers replaced desks with group tables, bean bag chairs, and other creative learning spaces. Second, they incorporated growth mindset and the Habits of Mind into classroom experiences. One teacher, for example, had each student choose a regular Habits of Mind goal each week; another had students decorate the classroom with different Habits of Mind “stations” all over the room.

These two changes led to larger classroom-level shifts at LOM. Teachers have noted substantial improvement in student/teacher communication. In addition, teachers now employ large group instruction less and instead focus on small groups. For their part, students embrace the greater autonomy in the classroom and speak of their own performance with growth-mindset-oriented language (e.g., “I haven’t mastered long division yet”). Looking ahead, Kraeuter and her teachers are excited to use the instructional rubrics, collect more regular data, and make additional changes to take further steps toward personalized learning.

FOCUS ON THE FUTURE (2017–PRESENT)

D51 has considerable work ahead to transform to a personalized model throughout the district, but its concerted district-wide approach offers numerous lessons for other districts.

PREPARING FOR 2017–2018

At all levels, from the superintendent to the classroom, D51 is pushing ahead along its journey to personalized learning—even with turnover at the superintendent level.

In the summer of 2017, staff across Mesa County were making arrangements to continue D51's journey to personalized learning. At the district level, Schultz continued to work with the school board to greenlight additional changes. The most important of these is his replacement as the superintendent of D51. Schultz had planned to retire in the coming half decade, but as he became further involved in D51's transformation to personalized learning, he realized that if he retired after the next school board election, the future of personalized learning could be in jeopardy. If new board members were less enthusiastic about personalized learning, they could replace him with a superintendent who had different priorities. Still, Schultz had no intention of leaving the transition incomplete. After extended conversations with members of the board, Schultz decided to retire at the end of the 2016–2017 school year, before the school board elections scheduled for the fall of 2017. By retiring early, Schultz could ensure that the current board, which fully supported personalized learning, would have the ability to choose another superintendent who shared its convictions. In the late spring of 2017, the board selected Ken Haptonstall as D51's new superintendent. Previously superintendent of the district in nearby Garfield County, Haptonstall had overseen the implementation of blended and competency-based learning there and brought a strong commitment to personalized learning.

The district leadership team continues to provide district-level support for personalized learning reforms. "I think there will be a lot of work ahead supporting our teachers with the implementation of the Teaching and Learning Framework and the rubrics. We'll iterate and focus on those pieces because they lay the stage for where we want to go," Grasso remarked. Midles adds, "We'll also look to the next phase of systems that we'll need to change including building schedules, calendars for professional development, and strategic compensation."

The measures that the D51 leadership team have enacted over the last three years have put D51 on a path to personalized learning implementation. In doing so, they have built a foundation for long-term success. Even with multiple transitions, momentum for D51's implementation remains

strong. The district's early efforts, including sending multiple district and community stakeholders to visit other districts and actively involving site leaders and teachers in the design of important tools such as the Teaching and Learning Framework, contributed significantly to this foundation. But most important of all has been the district's decision to implement personalized learning not as an additive component but as a comprehensive new approach to teaching and learning at the center of every school and classroom.

At the building level, personalized learning implementation has varied across D51's schools. Some—such as New Emerson—have made inroads in social and emotional learning beyond the district's requirements. Others need more time to become comfortable with personalized learning. But all share a strong understanding of what personalized learning is and a common belief in its importance, and all have readily taught growth mindset and the Habits of Mind to their teachers and students. The work of changing the “hearts and minds” in a district of more than 20,000 students and 1,200 teachers has laid a strong foundation for the district to implement performance-based learning, and ultimately personalized learning, in the years to come.

CHALLENGES

While D51 is proud of the progress it has made, the process has not always been smooth. District leaders encountered numerous challenges along the way. Many of these challenges were unavoidable, but they still did not deter D51 from adopting personalized learning. These included the following:

- 1 **A lack of resources:** With a lingering \$150 million cut to its budget from the Great Recession and no major outside grants, D51 lacked the resources to provide personalized learning coaches, additional professional development days, or 1:1 devices. “Money can accelerate change, but it cannot do the work on its own,” Midles reflected. “While we certainly could have benefitted from additional resources, we made sure not to use our lack of funding as an excuse. We did not want to have a deficit mindset.” To pay for the transformation, D51 reallocated existing funding and used means within the district to find additional funding (e.g., passing a property tax increase and a bond measure).
- 2 **The human-centered change process:** When D51 district and community leaders first visited Lindsay, few understood the magnitude of the changes that would need to occur, especially those related to changing student and adult mindsets and district-level systems. The change process was at first perceived as largely technical, with many demonstration schools believing they would be given specific practices that they could “switch on.” As individual schools learned that true personalized learning required their leaders and staff to reimagine how they approached education, they found themselves “living in ambiguity” far more than they had originally anticipated. “The schools thought there would be more 1:1 support,” Schultz explained, “but it was neither practical nor ultimately productive in this second-order change process.” When demonstration schools learned that the district's support would be lighter-touch, the demonstration schools had to readjust for a more difficult—though also more transformative—journey to personalized learning.

3 Limited control: With a small district office and few resources to help guide implementation, D51 exerted limited control over how schools would make changes in their classrooms. “I couldn’t give tailored advice to 43 schools. That’s a different kind of math,” Midles explained. Not only was district control limited due to budget, it was limited by design: D51 worked hard to ensure that personalized learning would enhance—and not supplant—individual schools’ identities. A partially decentralized change process also ensured that schools would take ownership over their transformation. But while such autonomy was intentional and necessary, some teachers and site leaders implemented new measures that went counter to the district’s goals, leading to stumbles in several schools’ journeys. “Sometimes the most difficult thing about leading change is knowing when to guide, when to lead, and when you may need to step aside,” Midles noted.

4 Trauma in the community: Several of Mesa County’s many suicides were committed by students in D51. When these tragic events occur, there is considerable fallout that requires the immediate attention of district leadership and slows other priorities, such as the transformation to personalized learning.

LESSONS FROM THE ONGOING JOURNEY

D51’s experience implementing personalized learning with few resources but a strong commitment has important lessons for other districts.

Though the district is still in the early stages of its journey, the foundation it has laid for personalized learning increases the likelihood of successful implementation in the years to come. While there are many aspects to the transformation that D51 has undergone, the characteristics highlighted below should be relevant to other schools and districts contemplating embarking on a similar journey.

1 Adapted national expertise to local context: As personalized learning has taken hold across the country, there have emerged a set of exemplars among the pioneering “innovator” schools and districts, which can help accelerate the work of the next wave of “early adopters.”¹⁵ As an “early adopter,” D51 benefited from the work of schools and districts that had gone before it, through multiple visits to districts like Lindsay USD, the guidance of experienced partners and technical assistance providers, and the expertise of Rebecca Midles, who had worked in multiple “innovator” districts. Though D51 gained valuable knowledge from those sources, district leadership and staff still needed to adapt the models and practices they observed to the specific context of Mesa County. Key elements of that adaptation were the comprehensive community engagement process that the district undertook as well as the latitude given to individual schools to adopt models and approaches that worked best for them, within the overarching frameworks of growth mindset, effective teaching practices, and personalized learning.

¹⁵ The terms “innovator” and “early adopter” to denote segments in the diffusion of innovations was popularized by Everett Rogers in his book *Diffusion of Innovations* in 1962. The innovators are the first 2.5% of people to adopt an innovation. The early adopters are the next 13.5%—still early, but in a position to learn from the “innovators.”

2 Fostered buy-in across typically partisan divides: Dramatic change efforts can often be hindered or halted entirely by political gridlock. As partisan polarization increases across the country, local representative bodies, such as school boards, that formerly operated through pragmatic consensus are often finding their decision-making processes breaking down into sharp ideological conflict. D51's school board changed in ways that reflected the larger political landscape, but the district's leadership was thoughtful about creating opportunities for board members across the political spectrum to find common ground. Holding an off-site retreat for the newly elected school board, as well as intentionally sending board members with differing political views on site visits together helped to build relationships and create alignment even among those who might not ordinarily find much on which to agree.

3 Built a multi-year foundation of culture and mindset change: D51's approach to implementing personalized learning has focused on first putting in place the groundwork of necessary mindsets and practices and only then bringing in the technology that people usually associate with personalized learning. More than two years after the district first committed to personalized learning, many classrooms still do not have the "visible" aspects of personalized learning (1:1 devices for students, station rotation models, etc.). While this measured pace of implementation might frustrate some, Midles explained its importance:



"We're just making sure we have a solid foundation. We're not competing. There's not a pace. There's not a time clock. But we need to build the foundations at district before we really want to move forward, because what happens is you have to go back and fix those things sometimes. And the initiative can fail in the process."

This seemingly slow pace was important for several reasons. First, it ensured that schools did not experience the changes too quickly and the district's culture had time to adjust without generating too much backlash or skepticism. By focusing the first stages of change on supporting effective practices, many of which overlapped with traditional models, schools could see themselves more readily in the change process. Second, while the most "visible" elements of personalized learning have been staggered, substantial progress has been made on the "non-visible" components, increasing the likelihood that schools will successfully make the jump to personalized learning and that the changes will stick, since they are supported by durable shifts in mindsets and practices.

4 Created advocates and support across the district: D51's leadership inspired commitment to personalized learning at all levels of the district and the community through a carefully sequenced approach. First, Steve Schultz sent some members of the school board to Lindsay to observe personalized learning firsthand. When they returned enthusiastic, it was easier for Schultz to make the case to send other district and community leaders, even in the face of limited funding. Through the site visits, those leaders cemented their commitment to personalized learning, which, in turn, paved the way for district leaders to recruit several demonstration schools. The early work of the demonstration schools, along with the district-wide buzz around personalized learning, encouraged other schools to adopt personalized learning the next year. Each step of this "cascading" approach built both momentum and support for what was required in the subsequent step. Had Schultz just issued a direct mandate to schools to shift to personalized learning, board members or community members might have become vocal critics and impeded or stopped the process. The careful cultivation of advocates and supporters also facilitated change in a resource-constrained environment. Had community leaders and board members not seen personalized learning first-hand and consequently developed a sense of urgency about implementing it at D51, making such significant changes in a cash-strapped environment might have been considerably more difficult.

5 Made progress despite limited funds: While many in the first wave of schools and districts that adopted personalized learning did so with considerable outside financial support, Mesa County's school district received very little in the way of philanthropic funding. In that respect, D51's situation is representative of that of most districts considering implementing personalized learning. Its creative approach to leveraging outside resources is instructive. With a clear vision in place, the district was able to use the limited grants and opportunities that were available, such as the CDE-sponsored study group on competency-based systems, to build momentum and advance the work. D51 leadership and staff also did not let limited resources provide an excuse for not moving forward. The relative dearth of external funding meant that the implementation process was slower and more challenging in ways, but D51 staff was able to fund the shift to personalized learning almost exclusively by realigning existing resources. As personalized learning is adopted by schools and districts beyond the initial set of grant-funded innovators, successful and sustainable implementations will likely require determined and creative approaches to supporting the work with current levels of resources, like the one taken by D51.

APPENDIX

APPENDIX A: LETTER WRITTEN TO D51 BY NEW EMERSON STAFF WITH QUESTIONS ABOUT PBL	39
APPENDIX B: RESOURCES USED BY D51 FOR GROWTH MINDSET	42
APPENDIX C: DRAFT LIST OF D51 GRADUATE COMPETENCIES	43
APPENDIX D: DRAFT TEACHING AND LEARNING FRAMEWORK	44

APPENDIX A: LETTER WRITTEN TO D51 BY NEW EMERSON STAFF WITH QUESTIONS ABOUT PBL

As dedicated K-5 educators at New Emerson, we are interested in anything that helps children become life-long learners and leaders, and we're constantly learning new pedagogical methods, implementing the most up-to-date best practices, and giving our students access to 21st-century academics and character development. We work around the clock providing rigorous and engaging learning opportunities during the school day and as part of special programs after school hours. We are a community of professionals who are always reading the latest research and willing to try new ideas.

However, being in the midst of learning about and growing our capacity in STEM education and Problem-based learning, with little financial or professional development support, we are understandably concerned about another drastic change we've been handed without an opportunity to ask important questions.

After doing some preliminary research, we have some important questions we feel it reasonable to ask and have answered before committing our students to this change:

1. According to a 2012 article in *Education Week*, Tom Rooney, the superintendent of the Lindsay Unified School District in California states, “[S]chool leaders entered the school year feeling well prepared because the district has been gradually putting competency-based education, or CBE, in place since the 2009-10 school year.”

Furthermore, in her paper about designing competencies, Christine Sturgis, the founder of the Santa Fe, N.M.-based education consulting company MetisNet, and one of the partners of the program and website CompetencyWorks says:

Re-engineering schools to a competency-based model is not a silver bullet, and creating competencies must be done thoughtfully and carefully to be successful...“If the competencies, learning objectives, and rubrics are not designed well, students may become bored by low expectations, frustrated by high-level competencies without adequate scaffolding embedded in the learning objectives, or disengaged through inconsistent feedback from flawed rubrics,” the paper says. “Although it is obvious, it cannot be overstated: Well-designed competencies are one of the essential elements for high-quality competency education.”

To create their competencies for a district of only 4,200 students, the Lindsay school district created a team of “30 teachers and about a dozen administrators to go through the California state education standards for grades K-12 and realign the information into need-to-know learning objectives. The district also worked with the Marzano Research Laboratory, run by educator Robert J. Marzano, to help design the new curriculum.” The team also created a set of assessments that the district would use to evaluate students on the new curriculum. Even then, it took them several years of testing and trying those competencies to pilot it with one small group, “an incoming class of 9th graders.”

Based on this information, we would like to know:

- What is our time frame for implementation?
 - Who will be on the competencies team to develop and revise the new competencies and associated assessments?
 - Will we have access to coaches and/or experts like Marzano?
 - What will the critically necessary professional development entail?
 - Will the educators responsible for this charge be given the opportunity to visit successful competency-based schools and districts?
 - When will the professional development take place?
 - Will we get support for our STEM and PBL foci as well?
 - What about our current standards and the UCIA?
 - How will report cards be revised and by whom?
 - Will this be aligned with the Common Core - thus preparing students for success on state mandated assessments? (Particularly in light of the Colorado Educator Effectiveness Program and pending moves by D51 to Performance-based Compensation.)
 - Will there be a grace period for schools and educators making the changes regarding the aforementioned educator accountability systems?
 - What can be taken off teacher’s plates (or what supports will be provided) to allow for the necessary time and energy for successful implementation?
 - With so many changes being implemented at the same time or within a relatively short time frame- SBG, Performance Based Compensation, Common Core and now Competency Based Education- etc. How can the district identify if this change is effective?
2. The videos on the Lindsay District website are of high schools and older students. In fact, of the seven schools currently involved in the Proficiency-Based Pathways project funded by the Bill & Melinda Gates Foundation and the Nellie Mae Education Foundation, all are high schools with fewer than 600 students.

Based on this information, we would like to know:

- How many models exist for elementary schools?
- How is the model different at each level?
- For students who are far behind others of their same age, do they not move on to secondary school until they are much older?
- What is the anticipated student-to-teacher ratio? (This level of differentiation, while ideal for student learning, is also very labor-intensive and nigh impossible for large classes when you're responsible for teaching 5-7 content areas.)
- How will this impact Special Education, RTI, and the Read Act?
- How will grade-levels 6-8 be added? Incrementally? Via a separate lottery?
- Will we be moved to a larger building with access to more classrooms, technology, staff, and materials?

It also appears that districts like Lindsay and other Competency-based systems rely heavily on technology to support “flipped” classrooms and student progress data as well as other 21st-century skills. This aligns perfectly with our current STEM magnet and really engages learners; however, New Emerson is also considerably behind other district schools in technology available to us.

Based on this information, we would like to know:

- What hardware, software, and infrastructure is necessary, and will we have access to it?
- If we grow to a K-8 school, will we receive more laptops and another computer lab?
- Will there be a fund/system for technology and the maintenance/updates necessary to keep it relevant?

As we move forward, we know that more questions will arise. As we've learned through our own training in curriculum implementation and professional development, the key to successfully implementing large-scale change, particularly in the initial stages, is a great deal of communication to and between all stake-holders – administration, educators, parents, and community members alike. We would like this to be something we do together rather than another top-down approach that leaves everyone feeling frustrated and ineffective. Without educator buy-in and training, any plan, even with the greatest intentions, will be detrimental to student learning - and that's what matters most.

Sources:

<http://www.competencyworks.org/resources/making-mastery-work/>

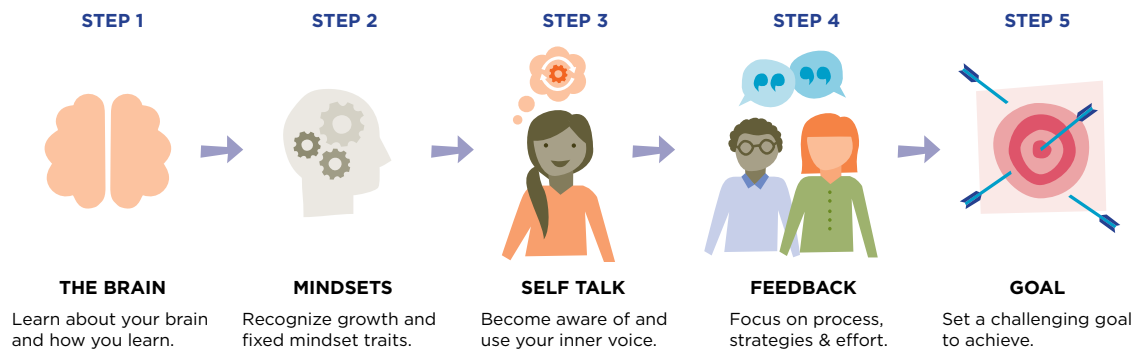
<http://www.competencyworks.org/wp-content/uploads/2012/11/Making-Mastery-Work-ES-NMEF-2012-Inline.pdf>

<http://www.lindsay.k12.ca.us/>

<http://www.edweek.org/dd/articles/2012/10/17/01competency.h06.html#>

APPENDIX B: RESOURCES USED BY D51 FOR GROWTH MINDSET

Five Steps of a Growth Mindset Culture



The progression began with understanding the brain. Growth mindset is rooted in neuroplasticity, and by understanding the scientific basis for how the brain can change and grow, growth mindset becomes much easier to understand. Once students internalize growth mindset, they can more proactively assess their strengths and areas for development. Further development can then occur under the direction of appropriate feedback, which, when coupled with resilience and persistence from growth mindset, ultimately allows students to achieve their goals. (More on D51's Five Steps of a Growth Mindset Culture can be found on [CompetencyWorks' Blog Series on D51](#), written by Chris Sturgis.) To help school leaders implement these changes, Midles gave them numerous resources, either as material for lesson plans or to give teachers a better understanding of themselves. A sample list of these resources includes the following:

- **Video on neuroplasticity**, TED talk on **The New Brain Science of Learning: Dr. Martha S. Burns**, and **Brainology Curriculum Guide for Parents**.
- Videos **The Power of Yet** (from Sesame Street) and **Keep Moving Forward** (from Meet the Robinsons).
- **How To Help Every Child Fulfill Their Potential**
- **Harvard Business Review article**
- **U.S. News and World Report article**
- **A Mindset for Learning: Teaching the Traits of Joyful, Independent Growth** by Mraz and Hertz.
- **The Story of Austin's Butterfly** and **Study on Praise and Mindset**.

APPENDIX C: DRAFT LIST OF D51 GRADUATE COMPETENCIES

- Focused on learning
- Financially literate
- Technologically literate
- Competitive in the workforce
- Collaborative, respectful, and willing to share their knowledge
- Contributors to the community
- Learners for life who know that failure is part of life
- Willing to know themselves, be self-aware, and advocate for themselves
- Courageous and resilient in their pursuit of their goals
- Academically prepared and able to apply their learning for their next pursuit
- Locally and globally aware of cultural issues
- Appreciative of cultural diversity
- Adaptable to constant change
- Able to collect, analyze, and understand data
- Able to think critically and solve problems

APPENDIX D: DRAFT TEACHING AND LEARNING FRAMEWORK

DIMENSION	SUB-DIMENSION	PURPOSE	GUIDING QUESTIONS
PROFESSIONAL ENGAGEMENT	REFLECTIVE PRACTITIONER (Myself)	<ul style="list-style-type: none"> I reflect and monitor my professional practices by setting and refining goals over time. I seek opportunities for professional growth. I respond to the growth and needs of my learners. 	<ol style="list-style-type: none"> In what ways do I gather information about each learner's growth and needs and then make instructional changes? How will I measure the impact of the instructional changes I implemented? What support do I need to grow as a practitioner? How do I employ my growth mindset to support continuous improvement? In what ways do I use student, peer, and evaluator feedback to improve my practice?
	LEARNING COMMUNITIES (My Team and I)	<ul style="list-style-type: none"> Our Learning Community values collaboration and offers support for growth within our team. Our Learning Community develops a goal focus and action plans to affect student and teacher learning. 	<ol style="list-style-type: none"> How do we interact within our Learning Communities? How do we develop and monitor our action plans? In what ways do we reach out for support? How do we influence one another's thinking, learning, and practice?
	LEARNING SYSTEM PRACTITIONER (Our Commitment to Each Other)	<ul style="list-style-type: none"> We value adult learning as much as student learning. We pursue our vision and goals through continuous improvement of people and processes guided by the Teaching and Learning Framework. We honor, value, and celebrate risk-taking. 	<ol style="list-style-type: none"> What are the contributions I make to our learning system? How do I conduct myself as a professional? How do I remain open to continuous learning for myself and others?

DIMENSION	SUB-DIMENSION	PURPOSE	GUIDING QUESTIONS
DESIGN FOR LEARNING	STANDARDS	<p>Standards are the fundamental elements of lesson design, defining the expectation for learning.</p> <ul style="list-style-type: none"> Standards are purposefully connected/linked to provide a broader purpose or context. Lessons are designed with the end in mind so that standards-based criteria for success are clear for students. 	<ol style="list-style-type: none"> What are the connections between the standards and learner needs? How are standards strategically selected to provide a broad purpose or context for learning? Do I have a clear understanding of evidence of learning for selected standards? How do the learning expectations (D51 standards, D51 rubrics, etc.) clearly communicate what learners need to know and be able to do? What will be acceptable evidence of learning?
	PLANNING	<p>Planning is the intentional organization of the <i>what</i> (resources) and the <i>how</i> (instructional approaches) that engage learners in mastering the <i>why</i> (D51 standards).</p> <ul style="list-style-type: none"> Learning experiences and resources are not taught in isolation but are related to a broader purpose. Instructional approaches scaffold the development of the targeted concepts and skills and gradually release responsibility, leading to learner agency and ownership. 	<ol style="list-style-type: none"> How do I plan with the end in mind (backward design/planning, essential questions, D51 standards, D51 rubrics, competencies, and relevance)? How do the resources and learning experiences chosen engage learners in rigorous learning aligned to the standard(s)? Are learners given opportunities to make important decisions about their learning, which include contributing to the design of learning experiences and learning pathways? What is the level and quality of the intellectual work in which learners are engaged (factual recall, procedure, inference, analysis, and meta-cognition)?
	DELIVERY	<p>Instructional delivery is the implementation of instructional approaches supporting learning.</p> <ul style="list-style-type: none"> Instructional delivery provides learner-centered, standards-based learning. Instructional delivery fosters learner agency and ownership. 	<ol style="list-style-type: none"> How do I scaffold to provide each learner with access to rigorous and relevant work? What strategies and structures have I put in place to facilitate differentiation and learner engagement (workshop model, small group work, partner talk, etc.)? How do I facilitate, encourage, and assess learners' thinking to build on one another's ideas and understandings? What strategies and structures (workshop model, small group work, partner talk, etc.) do I put in place to help learners engage in productive struggle and foster teamwork? How does the learning in the classroom reflect authentic ways of reading, writing, thinking and reasoning in the discipline under study (How does the work reflect what mathematicians do and how they think)? How do I use technology in service of learning?

DIMENSION	SUB-DIMENSION	PURPOSE	GUIDING QUESTIONS
LEARNER CENTERED ENVIRONMENT	SYSTEMS AND STRUCTURES	<ul style="list-style-type: none"> Learners are at the center of a responsive learning environment that promotes continuous improvement. The routines, procedures, and systems work together to create the learning environment. 	<ol style="list-style-type: none"> How does the environment support trust, equity, and inclusivity? How is the learning environment responsive to focusing on the whole child? How do the routines/Standard Operating Procedures (SOPs) of the learning environment facilitate student agency and ownership? How do physical environment, resources, and space support and scaffold learning? How do learners contribute to the design of learning experiences and learning pathways? How do mindsets get deeply embedded in the structure/culture of the classroom?
	CULTURE AND CLIMATE	<ul style="list-style-type: none"> Learners take ownership of their learning through combining habits with tools (goal setting, rubrics, etc.). Learners monitor and adjust their own learning interactions. 	<ol style="list-style-type: none"> What opportunities are provided for learners to take ownership of their learning, creating learner agency and ownership? How do learners engage in deliberate practice to develop expertise? To what extent do learners engage in quality work in order to produce meaning (individual, small group, writing, etc.)? What habits do learners consistently employ to guide their success? In what ways do the culture and climate support the social and emotional needs of the whole child?
	PRACTICES	<ul style="list-style-type: none"> The teacher facilitates multiple and flexible pathways for learners to engage and demonstrate their learning. By using their body of evidence, learners articulate what they need to know and be able to do within the learning system. 	<ol style="list-style-type: none"> How do learners reflect, pursue, and improve their process of learning? What opportunities for learners are in place to self-assess, adjust, and set goals in order to deepen learning? How are learner interests, background, and learning styles honored? How do learners communicate their understanding about what they are learning and why they are learning it?

DIMENSION	SUB-DIMENSION	PURPOSE	GUIDING QUESTIONS
MONITORING LEARNING	ASSESSMENT	<ul style="list-style-type: none"> • Assessment criteria, methods, and purposes are transparent and match the learning standard. • Multiple opportunities are provided for learners to demonstrate their learning. • A variety of assessment tools and approaches (anecdotal notes, conferring, student work samples) are used to gather comprehensive information about learners. 	<ol style="list-style-type: none"> 1. How do I use multiple forms of assessment to inform instruction and decision making? 2. How is evidence of learning gathered? 3. How comprehensive and varied are the sources of data (bodies of evidence)? 4. How do I make learning expectations, standards, and the assessment, transparent to all learners? 5. How do learners use rubrics to self-assess and monitor their learning?
	FEEDBACK CYCLE	<ul style="list-style-type: none"> • Formative assessment data is used to make adjustments to teaching and learning. • Reflective learners participate in a feedback cycle. • Actionable feedback is provided by multiple stakeholders. 	<ol style="list-style-type: none"> 1. How are assessment results used by learners and staff to set goals and gauge progress in order to increase ownership of learning? 2. How do I adjust instruction based on assessment of learning? 3. What opportunities do I provide for learners to participate in the feedback cycle? 4. How is feedback offered by and gathered from multiple stakeholders? 5. How do learners employ growth mindset as they navigate their learning?
	RECORDING AND REPORTING	<ul style="list-style-type: none"> • Progress and movement towards mastery is clearly defined and reported in a timely manner. • Content Standards and Social and Emotional Learning (SEL) are reported separately. 	<ol style="list-style-type: none"> 1. How do I make learning expectations, standards, and the way in which they are measured, transparent to all stakeholders? 2. How do I engage all stakeholders to support the learner?

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