EducationCities™

Personalized Learning: A guidebook for city leaders

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Acknowledgments

Introduction

Leaders of urban school systems are faced with a daunting fact: Some individual schools achieve incredible results for students from low-income communities, but no urban *school systems* achieve those results for all—or even most—children in an entire city. For generations, students in urban America have been underserved, with few achieving basic proficiency in reading and math, and even fewer completing college. At the same time, as cities and districts face shrinking education budgets while demands for college and career readiness increase, teachers are expected to do more with less. As new promising practices emerge at the classroom, school, district, and city levels, how can we expose more educators and administrators to what is working elsewhere?

For the purpose of this guidebook, personalized learning (PL) means that students' experiences—what they learn, and how, when, and where they learn—are tailored to their individual needs, skills, and interests, and enable them to take ownership of their education (see full defininition in appendix, p. 44). Early personalized learning work has generated significant interest and promising pockets of success in district, charter, and private schools alike. However, there has yet to be high-quality implementation at scale—across an entire system of schools or an entire city.

Why is scale important? The benefits of personalized learning are amplified when a system—a school district or a broader city ecosystem—creates the conditions for *every* student to have a personalized educational experience. However, to take personalized learning to scale, systems will need to address challenges in the areas of public policy, teaching and learning, staffing structures, accountability, technology infrastructure, and funding.

In this guidebook, we tell the story of eight cities and two consortia that aim to create the right system-level conditions so that teachers, students, and families have access to the tools and resources needed to personalize learning. To accelerate the pace of innovation at scale, these ten systems received funding to develop a system-wide personalized learning strategy and plan. To reach this ambitious goal, systems sought to design, launch, and replicate schools that implement personalized learning in a holistic manner, while simultaneously working to ensure that district and city functions (e.g., human capital and facilities) fully supported these schools, and their potential replication.

FROM EARLY EXAMPLES TO SCALE

For the last few years, several initiatives have supported individual district and charter schools to pursue a holistic vision of personalized learning, particularly schools that are incorporating technology into classroom instruction. While innovative and inspiring, these individual school investments alone will not lead to the rapid increase and replication of high-performing schools across member cities. Much more needs to be done to move from school-level to system-level impact.

To help accelerate the pace of innovation at scale, the Bill & Melinda Gates Foundation funded an effort in late 2013, inviting medium-to-large public school districts and nonprofit organizations committed to developing a system-wide personalized learning strategy to launch new schools or completely redesign existing schools. Twenty system design teams comprised of leaders from districts, nonprofits, charter management organizations, postsecondary institutions, intermediaries, and state education agencies, were selected to participate in Phase 1. Phase 1 included the development of a vision, strategic plan, district level redesign, and a multiyear implementation plan focused on personalized learning. Of those 20 applicants, 10 teams received additional funding and support to move on to Phase 2 in March 2014 to implement personalized learning strategies with support from Education Cities, NGLC, and other partners.

Phase 2, which includes school team selection, school design, and launch of these schools, requires system design teams to be visionary, high capacity, and committed to engaging in an intense multiyear effort to seed and scale personalized learning throughout their cities and regions. Although their strategies vary, they share common elements, including:

- *High expectations for college readiness:* Adults believe in the enormous potential of all students and support them in achieving at the highest levels, with a focus on learning growth and college readiness in the 21st century.
- *Personalized learning for all students:* Learning experiences for all students are tailored to their individual developmental needs, skills, and interests in order for each student to excel.
- *Optimization for scale:* The system's model is financially viable with public funding and can be replicated at scale if it demonstrates impact.

For an overview of the 10 systems progressing to Phase 2, please see the case studies on our website—www.Education-Cities.org. Please note that anywhere we have included a reference document or tool on our website we have marked it with a ⌨ in the text.

DISTRICT-LED TEAMS AND PARTNER-LED TEAMS

As we began the system-level strategic planning process, we realized that system design teams fell into two categories—those led by a district, and those led by a nonprofit, or harbormaster.[1] Although similar in many ways, strategies and obstacles often differ when led by a district versus a harbormaster. Throughout this paper, we attempt to highlight examples from both categories so that leaders of either type of organization can see their potential role in this work.

10 Trailblazing Teams

District-led teams
Henry County Schools, GA (HCS)
Riverside Unifed School District, CA (RUSD)
Pinellas County Schools, FL (PCS)
Lake County Schools, FL (LCS)
Dallas Independent School District, TX (DISD)
Denver Public Schools, CO (DPS)

Harbormaster-led teams
New Schools for New Orleans, LA (NSNO)
Rogers Family Foundation, Oakland, CA (RFF)
New England Secondary Schools Consortium (NESSC)
Colorado Education Initiative (CEI)

THE GUIDEBOOK—WHO IS IT FOR?

Planning for and implementing personalized learning is unquestionably challenging work. To date, no personalized learning model has achieved full scale and sustained achievement over an extended time frame. However, a number of systems—including the ten in this cohort— are trailblazers.

Over the past several years, various organizations have provided schools with case studies and information on how to best "blend", and now personalize, learning for students. Bellwether Education Partners recently released A Policy Playbook for Personalized Learning[2], a set of policy recommendations aimed at state and local policymakers as they seek to scale personalized learning. However, few resources exist for district nonprofit and city leaders to plan for broad implementation of high-quality personalized learning. This guidebook attempts to do just that by serving as a strategy development reference.

The guidebook presents a series of questions to consider as you assess your readiness to embark on this work, leveraging the processes and strategies these ten systems developed. Moreover, it provides key takeaways and examples. While this guidebook highlights examples of early successes as well as challenges faced, it is important to underscore that these systems are still in the very early stages of implementing their strategic plans. It will be difficult to draw conclusive recommendations as to which tools and strategies are the "best" or "worst", but the lessons learned and codified by this cohort should inform potential approaches as you engage in this work.

As a result, we have included examples and tools on our website for your reference and use. We will continue to update these resources as systems progress in the implementation of their plans. Again, they are noted throughout the text with a 🖥 .

DEFINING PERSONALIZED LEARNING

One strategy used to achieve personalized learning is blended learning, where a student learns, in part, through online delivery of content and instruction with some element of student control over time, place, path, and/or pace.[3] Personalized learning, however, is not synonymous with, and therefore should not be limited to, blended learning and should not be solely about purchasing devices, software, or content for every student and teacher.

For the system-level design initiative, we focused on four common elements to personalized learning, although these attributes can and did vary substantially depending on a system's unique circumstances:

- *Learner profiles:* Students' strengths and weaknesses, motivations, and goals are visible to them and to their teachers. Profiles are constantly updated as new data become available.
- *Personal learning paths:* Each student follows a path through content and skills in ways that work best for him or her. Though students' paths vary, the destination is the same—clear, high expectations.
- *Competency-based progression:* Student learning is continually assessed against clearly defined expectations and goals. Each student advances as s/he demonstrates mastery.
- *Flexible learning environments:* Time, space, roles, and instructional models vary depending on the needs of students and teachers, rather than being fixed variables.

See appendix (p. 44) for more detail on this definition of personalized learning.

HOW MIGHT A PERSONALIZED LEARNING ENVIRONMENT FEEL DIFFERENT TO A STUDENT?

Example: Pinellas County Schools' Vision for Personalized Learning

New ways of progressing through courses: Students' weekly schedules will vary based on their mastery of content the week prior. Seat-time waivers allow students to progress once they demonstrate content expertise, giving them the opportunity to graduate from high school in as little as two years.

Changes to traditional school day schedules: Students may have the option for either an early morning or midday start, and bells will no longer dictate student movement.

Different types of learning environments: Students will have the option to participate in courses that blend online learning with in-classroom teacher support, as well as opportunities to choose their own projects whenever possible.

Real world experiences: Juniors and seniors will be able to take advantage of diverse community internships, a capstone project, and/or dual enrollment programs.

Emphasis on collaborative learning: Curricular programs will encourage the development of a collaborative work ethic and digital citizenship, and will engage students in authentic tasks similar to what they will encounter in their careers.

SUMMARY OF KEY LESSONS

Through the experiences of the ten systems, a set of common questions and practices have emerged to guide one's ability to build the right foundation for personalized learning to flourish at scale. The following lessons can help guide district and school leaders through the process of making critical decisions:

- *Lesson 1:* Know the current state
- *Lesson 2:* Establish a focused, coherent, and aligned vision for personalized learning
- *Lesson 3:* Make wise investments in infrastructure and technology
- *Lesson 4:* Invest in human capital
- *Lesson 5:* Choose the right people and partnerships to lead the work
- *Lesson 6:* Focus on change management and stakeholder engagement
- *Lesson 7:* Foster continuous improvement and learning throughout implementation

Initial Needs Assessment (Lesson 1)

Personalized Learning Vision (Lesson 2)

Technology (Lesson 3)

Policy (Lesson 3 & 4)

Human Capital (Lesson 4)

Project Management + Partnerships (Lesson 5)

Continuous Improvement (Lesson 7)

Stakeholder Engagement + Communication + Change Management (Lesson 6)

Students prepared for college and career in the 21st century
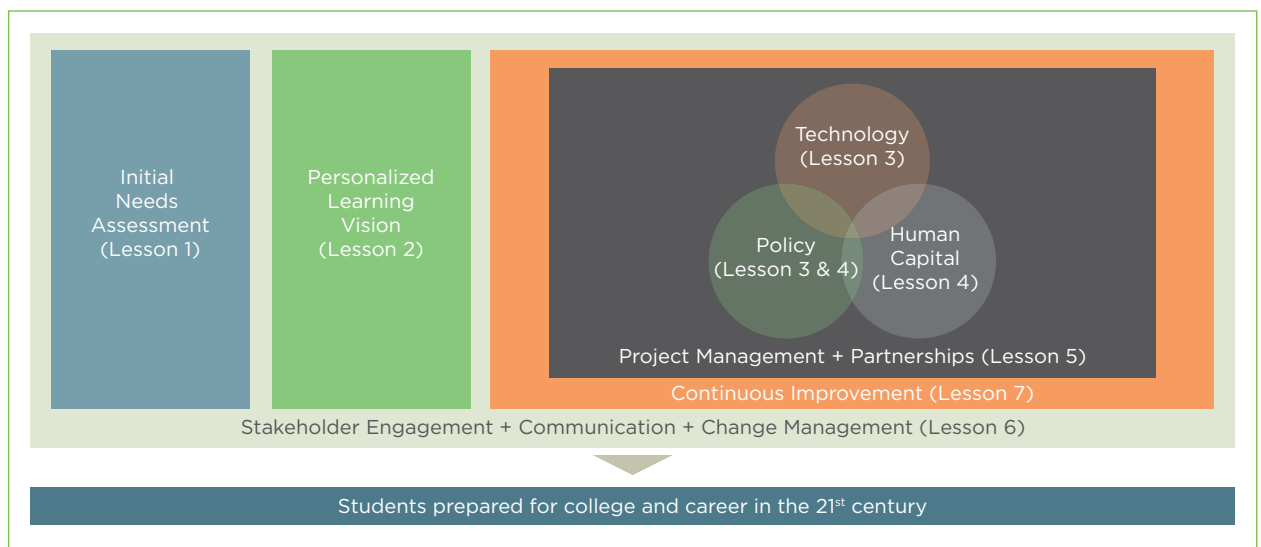
SUMMARY OF KEY TAKEAWAYS FROM THIS TRAILBLAZING COHORT

Lesson	Key takeaways
Lesson 1: Understand the current state	**Lesson 1.1:** Prior to conducting a needs assessment, ensure that personalized learning is a priority, develop a core team to manage the needs assessment, and create a preliminary definition of personalized learning. **Lesson 1.2:** Conduct a needs assessment that addresses a comprehensive set of factors within the system and engages a wide set of stakeholders.
Lesson 2: Establish a focused, coherent, and aligned vision for personalized learning	**Lesson 2.1:** Create a vision and set of guiding principles for personalized learning, with a focus on teaching and learning. **Lesson 2.2:** Align, embed, or refine the vision for personalized learning with the existing vision and priorities of the system:
Lesson 3: Make wise investments in infrastructure and technology	**Lesson 3.1:** Define teaching and learning first and, technology second. **Lesson 3.2:** Identify and mitigate potential barriers to effective technology implementation, particularly those that create financial burdens. **Lesson 3.3:** Invest in data access, collection, analysis, and application.
Lesson 4: Invest in human capital	**Lesson 4.1:** Define the competencies required of teachers and adults within a personalized learning environment. **Lesson 4.2:** Make a deep investment in aligning educator effectiveness and support systems that align to the personalized learning vision and principles. **Lesson 4.3:** Identify potential barriers and mitigation strategies to ensure effective human capital recruitment and development.
Lesson 5: Choose the right people and partnerships to lead the work	**Lesson 5.1:** Compose the appropriate team to lead the work: **Lesson 5.2:** Identify partnerships to enhance personalized learning efforts, aiming for city-wide, cross-sector collaboration.
Lesson 6: Focus on change management and stakeholder engagement	**Lesson 6.1:** Transition is hard—emphasize the importance of change management. **Lesson 6.2:** Identify the breadth and interest of stakeholders who should engage with the planning and implementation of personalized learning. **Lesson 6.3:** Craft a plan to promote awareness, deepen engagement, and mitigate concerns.
Lesson 7: Foster continuous improvement and learning throughout implementation	**Lesson 7.1:** Build upon current improvement practices, and instill a mindset and practice of quick iteration and improvement. **Lesson 7.2:** Identify the appropriate pilot strategy. **Lesson 7.3:** Take school selection and design as seriously as implementation. **Lesson 7.4:** Create opportunities for best-practice sharing and learning across the system.

Lesson 1: Understand the current state

Each school and system is unique. Strategies that are highly effective in some environments can be difficult to sustain in others without the right culture, processes, supports, and people. To set yourself up for success, you should have a strong understanding of how your system operates, including its strengths and weaknesses, before you began to shift it to one that supports personalized learning. Therefore, conducting a comprehensive needs assessment is the first step any system should take in planning for personalized learning. The needs assessment should help answer the following questions:

KEY QUESTIONS:
- What does our data tell us about our students, particularly those we are not currently serving well? What do we want personalized learning to accomplish for our system?
- How ready are we to implement personalized learning?
- What past efforts to implement personalized learning might we build on?
- Will broader policy conditions act as a barrier to our efforts to support personalized learning at scale?
- What is the current state of our infrastructure and technology assets and support?

LESSON 1.1: Prior to conducting a needs assessment, ensure that personalized learning is a priority, develop a core team to manage the needs assessment, and create a preliminary definition of personalized learning.

Elevate personalized learning as a critical priority from day one.
Rather than an isolated initiative, personalized learning should act as a fundamental reorientation of how teachers teach and students learn, and will therefore impact many aspects of a system. Therefore, senior leaders need to demonstrate strong support for the needs assessment at the outset, recommending to all key stakeholders that full participation in the needs assessment is valued and expected.

Create a core team to manage the personalized learning initiative.
A significant amount of capacity and resources is required to execute a thorough needs assessment. Therefore, a core team, led by a project manager, should handle the data collection, synthesis, and analysis during the needs assessment. The team should have representation from the system's teams or departments related to personalized learning. For more details on team composition, see the section on project management (Lesson 5).

Create a common definition of personalized learning.
The systems in the first cohort often found that definitions for personalized learning varied among stakeholders. Therefore, as you begin to analyze the current state of affairs in your system, you should develop a common definition to which stakeholders can react. It could be as simple as, "Each student learns what he or she needs in the way her or she needs it, and at his or her own pace." Alternatively, one could reference the definition in the appendix.

LESSON 1.2: Conduct a needs assessment that addresses a comprehensive set of factors within the system and engages a wide set of stakeholders.

Some leaders begin by evaluating their current technological capacity. However, you should look more holistically at the entire system, and seek to:

- Understand current teaching and learning practices and student performance.
- Articulate the most urgent problem to solve within a system and decide whether personalized learning is the solution.
- Identify and learn from classrooms and schools where personalized learning has already taken hold, and from the teachers and school leaders leading the work.
- Gauge the interest and understanding of personalized learning among multiple constituents within a school system or city.
- Understand the current state of physical infrastructure and policies that either support or inhibit personalized learning.

Without carrying out this baseline needs assessment, a system runs the risk of developing unrealistic goals and a strategic plan that is not actionable.

As part of this initiative, we created a package of needs assessment tools that can be used by your system.

Dig into the data.
Data collection will be instrumental in building a case for personalized learning, focusing efforts, and highlighting where your system will need to target extra time and resources. At the same time, be mindful not to overwhelm individuals; how you approach data collection will shape stakeholders' early perception of your efforts. Ask questions to which you need immediate answers and defer "nice to haves" to later in the process.

Early on, you should reflect on current student performance in your system measured against key success metrics and students' overall college readiness. This exercise should include comparing school performance against local, state, and national benchmarks and disaggregating historical and current school performance to identify significant trends and gaps in achievement. A comprehensive picture of system-wide performance can help pinpoint challenges and potential focus areas. Oftentimes, this analysis can highlight students who have typically been underserved—both individuals and subgroups—and sets the stage for personalized learning. Will personalized learning efforts raise the bar overall, close the gaps, or both?

Once you identify a key problem or focus area from the data, it is worth engaging a wide set of stakeholders to ensure that they agree with your assessment. Without broad stakeholder participation, it can become challenging to move the work forward.

As you develop your personalized learning vision, you may surface new core skills and competencies for students to become college- and career-ready. You should ensure that the data collection process is flexible enough to accommodate any new types of data you need to collect in the future.

Catalog existing personalized learning efforts and the individuals responsible for them.
Many teachers and school leaders are already implementing their own personalized learning efforts in their classrooms. Much of this work goes undocumented and receives little support, making it challenging to assess the effectiveness of specific practices or investments. As systems expand personalized learning, they can address these issues by cataloguing the work already underway, with an eye toward capturing common themes or emerging best practices for potential codification.

Example: New England Secondary School Consortium
NESSC currently uses its Global Best Practices needs assessment[4], which offers schools a practical, step-by-step process to assess their performance in critical areas and shape their school improvement plans. The Global Best Practices assessment was a valuable resource already in place as NESSC began to scale up its personalized learning efforts.

Assess school leader and staff knowledge, interest, and capacity.
Personalized learning efforts will only succeed with full support from school leaders and teachers across the system. Their understanding of, and attitudes toward, personalized learning are therefore some of the most important inputs to benchmark and track over time. Using the set of needs assessments, system leaders should ask teachers and leaders questions, such as:

- To what degree do you believe personalized learning can be transformative for students?
- Which elements make you nervous? Why?
- Collectively, do you feel empowered and supported to lead this change on behalf of your schools and students? Why or why not?

Example: Riverside Unified School District
Early in its work, Riverside undertook a comprehensive assessment of stakeholders' awareness of and interest in personalized learning. RUSD used data from this assessment to understand different stakeholder groups—students, teachers, principals, and parents—and the behavioral shifts they desired. The system design team then went into a deeper planning process informed by these findings.

Assess existing technology and infrastructure.
A system's effective transition to personalized learning depends on its understanding of how technology can enable great teaching and learning. Assessing the current state of technology will be helpful as you define the role of technology in your personalized learning vision. This type of assessment will allow a system to understand the gap between its current and desired technological capacity and infrastructure—and to effectively develop a plan to close that gap.

Example: New England Secondary School Consortium
To develop NESSC's strategic plan, 75 schools in this five-state regional consortium completed comprehensive information technology surveys. While individual school results highlighted major differences in infrastructure both within and across the NESSC states, the assessment process also identified common strengths and concerns.

Identify policy and practice barriers that inhibit, as well as those that promote, personalized learning.

Up until now, efforts to personalize learning have mostly surfaced through committed educators *working around* restrictive policies and practices. You should seek to create goals that foster conditions and policies that help personalized learning *thrive* and *sustain*. Answering the following questions will help you understand potential barriers:

- Are there policy restrictions around redefining teachers' staffing or roles and responsibilities that may need to change under new personalized learning models?
- Do current state or district policies limit students from moving through curriculum at their own pace?
- Are there any financial requirements that could constrain funding of innovative models?
- Are there any policies that seem to promote personalized learning? These could include ones that promote flexibility for schedules/seat time, open seats for charters or schools with charter-like autonomies, innovation funding, proficiency-based progression and/or graduation, flexible staffing structures, robust technology infrastructure, etc.

Prioritizing which policy barriers to tackle will depend, in part, on your system's vision for personalized learning. Therefore, it may be necessary to work through building a vision (see Lesson 2) before prioritizing the most important practice or policy changes.

Example: New Schools for New Orleans

Unlike many cities, New Orleans has a strong education ecosystem already in place and the support of multiple organizations and government bodies committed to systems-level change. But NSNO still identified a significant challenge: The fixed timing of state assessments makes it difficult to fully implement mastery-based learning. The Recovery School District, one of the two coalition districts, now plans to leverage its relationships with the state government to advocate for broad policy changes that shift this paradigm. NSNO and school operators will simultaneously continue to develop internal assessments that track student mastery.

Example: Colorado Education Initiative

CEI has worked with the Colorado Department of Education to influence graduation requirements, which now align more closely with its vision for personalized learning. The Colorado Department of Education passed new graduation guidelines in May 2013, requiring students demonstrate a broader set of skills in addition to academic competence, including critical thinking and reasoning, information literacy, collaboration, self-direction, and invention, and have acknowledged extracurricular activities, service learning experiences, and capstone projects as ways to demonstrate this learning. In addition to ensuring students achieve this broader set of skills, CDE has also promoted educator effectiveness, accountability metrics that emphasize academic growth, competency-based graduation requirements, and school models that can seek "innovation status" in order to gain autonomies around staffing, budget, etc. As such, districts in Colorado sits within a ripe and unique state environment set up to support learning experiences that ensure students graduate college and career ready.

Engage a broad set of stakeholders.
Plan to solicit early input and feedback from students, parents, and community members, and pay close attention to differences in perception between and within groups. Engaging stakeholders early increases chances of attaining higher levels of buy-in. Be sure to communicate that their feedback will help shape the final vision for personalized learning. For more information on stakeholder engagement, see Lesson 6.

Where to from here?
A needs assessment serves as the foundation to both vision creation and resource allocation.

Collecting data will allow you to have a comprehensive understanding of the defined problem as well as perceptions among various stakeholders so that you can shape a vision with strong support throughout the system.

System-level resources—including time, money, expertise, social capital, and partnerships—are essential to implementing personalized learning, but they are not unlimited. A needs assessment can help you understand how resources are currently being deployed, and provide information on ways to reallocate resources that better meet the vision for personalized learning you will create (see Lesson 2).

> ### Example: New England Secondary School Consortium
> NESSC took the needs assessments one step further, clustering its results to determine three distinct "archetypes" of schools transitioning from traditional to personalized learning environments: the Community-Driven School (26%), the Leadership-Driven School (56%), and the Early-Adoption School (18%). Developing and understanding these archetypes helped NESSC provide targeted support to a large number of diverse schools across the five states.

A preliminary needs assessment is vital. However, we advise that you continue conducting needs assessments, even if they are not as robust and thorough, as you and your system advance your vision and plan for personalized learning.

Summary of key takeaways:

Lesson 1: Understand the current state

Lesson 1.1: Prior to conducting a needs assessment, ensure that personalized learning is a priority, develop a core team to manage the needs assessment, and create a preliminary definition of personalized learning.

Lesson 1.2: Conduct a needs assessment that addresses a comprehensive set of factors within the system and engages a wide set of stakeholders.

Lesson 2: Establish a focused, coherent, and aligned vision for personalized learning

KEY QUESTIONS:
- What core beliefs and principles are we starting with?
- How should this vision be positioned?

LESSON 2.1: Create a vision and set of guiding principles for personalized learning, with a focus on teaching and learning.

After the initial needs assessment, strong execution will depend on having a focused, coherent, and aligned vision for personalized learning. Personalized learning strategies should be coherent and explicitly tied to the overarching system vision and the needs assessment.

The process of articulating a vision serves two primary functions. First, it requires system stakeholders to come to a shared understanding of what personalized learning is and what it should accomplish, before these stakeholders commit significant time and resources. Systems that lack focus or are unclear on what exactly personalized learning will accomplish for students and communities tend to take on too much, and find themselves unable to channel system capacity and resources toward the highest-impact strategic priorities. Second, it becomes the foundation for system efforts to engage and invest in a broader set of stakeholders around a large-scale initiative.

Draw on site visits and research to inspire a vision.
As you create your vision, know that many schools and systems already have compelling examples in action. Some systems in the first cohort found it valuable to see what was happening in other schools across the city and country, particularly within systems that seemed similar to their own, to inspire their visions. This can be accomplished through school visits or by drawing on the expertise of thought-leaders who have carried out this work across multiple sites.

Example: Henry County Schools
Henry County Schools prioritized school visits during the early phases of its visioning process. All secondary principals were invited to travel to various schools around the country to see firsthand important elements of personalized learning. District staff accompanied the principals to facilitate conversations and help document feedback. Principals were interviewed upon return about their observations, and many have spoken at various district events about their experiences.

Ask essential questions.
In developing the vision, system leaders should consider the following essential questions:

- *Problem to solve:* What is the most pressing problem for your system? How can personalized learning solve this problem better than any other solution?

- *Effective instruction:* How will personalized learning transform teaching and learning in your schools? What is the role of the student, teacher, school leader, family, and community member in this new model? What would a day look like for each of these individuals? How can available technology affect the possibilities for personalizing learning at scale?
- *Inspiration and innovation:* What is most inspiring about the prospect of providing personalized learning for all students? How far could we push the boundaries on what school should look like?
- *Strategic alignment:* Where and how does personalized learning align with and support strategic priorities already in process? How can personalized learning become part of the system-wide strategy rather than an isolated project or initiative? How will it complement, not compromise, existing system strengths?
- *Measuring progress:* How do you define and measure student success? How will you know if you are on the right track to realizing your vision? To what goals and metrics, especially around student outcomes (college readiness and learning growth), will you hold the system accountable? Which leading indicators will help you evaluate the likelihood of meeting those goals?

Create "guidelines," but avoid prescription.
Early on, define the vision's "non-negotiables" as well as areas where flexibility is encouraged. In some cases, you will want aspects of personalized learning to be consistent across the system; in others, you will want to encourage schools to create their own interpretations, in keeping with unique school environments and local autonomies. You will constantly need to consider the right balance of standardization and flexibility.

Example: Henry County Schools

Henry County Schools found that a big part of its success with community buy-in grew from a commitment to give schools ultimate control. Henry County Schools enabled its stakeholders to design what day-to-day operations would look like within the district "guardrails" created by the vision. The system describes it as "a philosophy with metrics rather than a model with a checklist."

Clarity of the vision and communication about it are paramount. Boil down your personalized learning vision and strategies to a few sentences or a framework that is easily accessible to all stakeholders, including educators as well as students, parents, and community members. Develop case studies that explain how students, teachers, school leaders, and administrators engage with personalized learning to bring the concepts to life. Districts may consider branding their vision into a clear graphic as Henry County Schools did (see figure).

HC's Vision for Personalized Learning

All Students College and Career Ready

- Learning Profiles
- Competency, Flexible Pace
- Authentic Project-based Learning
- 21st Century Skills
- Technology-enabled

Student Voice and Choice

School Autonomy and District Support
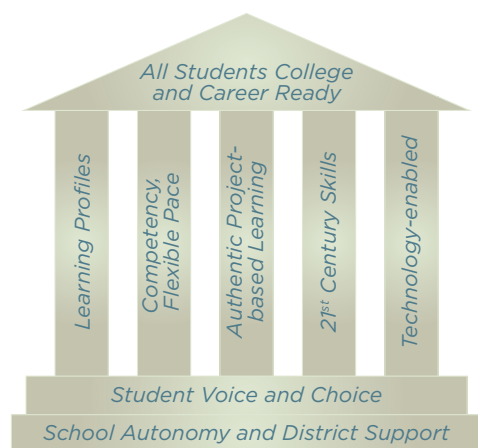
WAIT—WHERE IS TECHNOLOGY IN ALL OF THIS?

Oftentimes, the role of technology is not front and center for a vision. For many of the systems in the first cohort, technology comprised only a small part of a vision. Describing personalized learning as a shift in teaching and learning, rather than a move toward technology, has several benefits. In some cases, stakeholders can be fearful of personalized learning, assuming that technology will replace teachers; sometimes, they are simply apprehensive about using technology. Therefore, by orienting the vision around a critical problem (which typically has little to do with technology), and redefining teaching and learning toward greater personalization that meets the needs of students and teachers, a greater number of stakeholders will buy into the vision. Furthermore, a vision can allow stakeholders to see how and why technology could support the system in reaching transformative outcomes—this strategy will be more effective than choosing to improve technology without a clear reason. Read more in Lesson 3.

LESSON 2.2: Align, embed, or refine the vision for personalized learning with the existing vision and priorities of the system.

There is no one "right" way to position personalized learning. However, system leaders often successfully promoted it by aligning it with existing priorities. In some cases, leaders embedded it within existing visions. In other cases, personalized learning became the cornerstone for a refined vision. Regardless of its prominence, the ability to link personalized learning to existing strategic work creates momentum much quicker than if it is an isolated initiative, or if it is positioned as "disruptive" to current practices.

For systems that already have a well-defined vision with explicit personalized learning elements, leaders should focus on vision refinement, building upon existing strategy rather than starting from scratch.

Example: Colorado Education Initiative
Having worked with the Colorado Department of Education on its personalized learning strategy in the year prior to this effort, the Colorado Education Initiative (CEI) brought an existing vision that students needed academic, professional, and entrepreneurial competencies, as well as a knowledge of self and a drive to contribute, to the visioning and planning process. CEI also took advantage of the planning process to share its vision and strategy with other school systems participating in the initiative. The rationale was that the research and other work that went into the creation of CEI's vision would help push the existing visions of individual consortium members to see personalized learning as key to student success.

Example: New England Secondary School Consortium
NESSC had spent a lot of time—six years—creating a vision prior to this formalized planning process. The organizational structure and culture of NESSC was designed to facilitate the involvement of stakeholders in each member state at various levels: governors, legislators, state education agencies, business leaders, higher education, superintendents, principals, and teachers.

Systems that had less upfront clarity on their personalized learning vision, or were crafting a broad new vision across new stakeholder partners, faced a longer process.

Example: Dallas Independent School District
The Dallas team facilitated a series of initial brainstorming sessions among district leadership and key community partners (e.g., the Office of the Mayor, the Dallas Regional Chamber, the school of education at Southern Methodist University), using the Bill and Melinda Gates Foundation's school-design attributes as a starting point, referring to examples of personalized learning in practice, and gaining input from external advisers. Over the course of these sessions, DISD refined its vision with continuous input from its advisory and working groups.

Be prepared to iterate[5] and refine your vision as you engage a broader set of stakeholders.
As with the needs assessment, involve a wide array of stakeholders in developing the vision—and be prepared to iterate. Soliciting input from students, parents, community members, and school and district leaders is critical, *especially* for articulating how personalized learning will look and feel in the classroom. At the same time, understand how the vision-creation process and the vision itself may affect the involvement of different stakeholder groups, and try to be proactive in building relationships so that these groups do not feel disenfranchised. Set limits on how many times you return for feedback so you're not mired in an endless loop of seeking comments before you make a decision.

Example: Denver Public Schools
Though a group of individuals developed a preliminary vision for personalized learning, the needs assessment surfaced several variations on this definition. The planning process allowed the core team to synthesize these definitions into one vision that many individuals could support, including students. In the process of engaging diverse stakeholders, it not only helped refine the vision, but also elevated the importance of personalized learning as a key lever to increase college and career readiness. As a result, personalized learning is a tenet in the district's new revision of its strategic plan.

Summary of key takeaways:

Lesson 2: Establish a focused, coherent, and aligned vision for personalized learning

Lesson 2.1: Create a vision and set of guiding principles for personalized learning, with a focus on teaching and learning.

Lesson 2.2: Align, embed, or refine the vision for personalized learning with the existing vision and priorities of the system.

Lesson 3: Make wise investments in infrastructure and technology

In some cases, teachers and leaders can personalize learning in the absence of technology. However, you will likely find that technology can help personalization scale more quickly and easily, as it can enable real time access to data and individualized content on a consistent basis.

KEY QUESTIONS:
- What is the role of technology in enabling personalization?
- What are the major barriers to successfully leveraging technology in the classroom? How might we mitigate these barriers?

LESSON 3.1: Define teaching and learning first, and technology second.

Strong personalized learning visions will clearly articulate the instructional vision and then define the role of technology in supporting that vision. This trailblazing cohort offers a few examples of how technology is transforming the learning experience.

Example: Henry County Schools

HCS is creating "Digital Learner Profiles" to help chart individual students' personal learning pathways, and to measure progress along that path. HCS seeks to equip every student with a Learner Profile that includes information on student achievement (e.g., ACT scores), learning paths (e.g., courses taken and grades), non-academic skills and behaviors (e.g., communication, collaboration, creativity, critical thinking), college-going behaviors (e.g., FAFSA completion), personal interests and goals, and learning styles. Moving this data from occasional, static report cards and paper files to a dynamic online location enables students, teachers, and parents to easily access the profiles. HCS envisions students, parents, and educators using Learner Profiles as a guiding tool in decision-making. However, the system also notes that digital learner profiles are much easier said than done, as no off-the-shelf system is currently available to meet the many needs identified.

Example: Lake County Schools

LCS aims for "1:1 computing," where there is one device for every student, in order to increase student engagement, capture real-time data, and create flexible learning environments. Making sure devices are available on demand and easy to use, LCS's 1:1 computing strategy will allow students to access instructional materials and take assessments that provide real-time performance data for teachers. Some students may watch online lectures, others can complete short activities at their own pace, and another group of students can work collaboratively on media-enhanced group projects (e.g., filming and editing a short video about a historical event). Additionally, LCS can expand learning time through the ability to take devices home, creating flexibility of both time and space for student learning. LCS also leverages online courses and virtual schools to increase programmatic choices for students, provide greater scheduling flexibility, and enable competency-based progression.

LESSON 3.2: Identify and mitigate potential barriers to effective technology implementation, particularly those that create financial burdens.

The initial needs assessment should provide some information on what may inhibit the effective use of technology in the classroom, which can range anywhere from teachers' knowledge and skills to use technology, to the amount of internet bandwidth available to allow multiple devices to work within the same classroom. Moreover, given the considerable resource constraints most cities face, leaders need to be thoughtful and strategic about financial investments in technology, with an eye toward lasting sustainability. There are two major questions to address: First, how will the work be funded, both upfront and on an ongoing basis? Second, how will funding impact timelines for rolling out supports to schools?

Mitigate potential financial risks.
Systems have taken some of the strategies below to mitigate some of the costs associated with technology.

Engage local funders to mitigate startup costs.

Example: Dallas Independent School District and New Schools for New Orleans

Dallas Independent School District and New Schools for New Orleans recognize that the startup costs of acquiring devices, improving connectivity, and training teachers and staff present financial challenges. These systems are working with local philanthropies and other donors to offset those costs.

Pass bond measures or raise local taxes to provide startup and implementation capital.

Example: Henry County Schools

HCS's long-term plan is to dedicate the 2019-2024 Special Purpose Local Option Sales Tax (SPLOST) to district technology upgrades. HCS believes it will receive voter support in 2018 because past SPLOST requests were supported.

Example: Rogers Family Foundation (RFF)

Oakland taxpayers passed a local bond measure in 2012, part of which will pay for wireless and Internet upgrades in district school facilities. RFF's leadership ensured that the facilities bond included infrastructure upgrades necessary for 21st Century teaching and learning.

Leverage "Bring Your Own Device" policies.

Example: Pinellas County Schools
PCS will leverage the "Bring Your Own Device" strategy, which allows PCS to take advantage of the fact that many students already carry devices. This reduces the upfront capital expenditure of buying hardware and devices, which eventually become outdated. However, in most cases, this approach is a temporary and imperfect bridge until funding is secured to support the purchase of devices, as this strategy creates unreliable access if a student doesn't have continuous access, invites backlash when expensive family devices break or disappear at school, and often intensifies inequities.

Make wise, initial investments.
Plan several steps ahead with technology. Technology is constantly evolving, and systems should take care to not paint themselves into a corner with choices that solve an immediate need but may add legacy costs or constraints down the road.

Roll out technology to teachers first, ensuring educator confidence in the classroom.
Making an initial investment in teachers understanding and using technology creates a foundation for teachers to more effectively use technology with their students.

Example: Lake County Schools
Lake County Schools believes that for teachers to use technology seamlessly in their classrooms they first need time to learn and become proficient themselves. The district's approach has been to provide technology tools to the teachers before rolling out the devices to students.

Example: Rogers Family Foundation
In Oakland, the blended learning pilot sites focused on supporting those teachers at school sites who were eager to participate first, with the explicit commitment that future teachers would move forward with the support of their now more-experienced peers. Additionally, when the Oakland Unified School District purchased devices for teachers, it provided them first to teacher leaders at all school sites before gradually rolling out devices to the general teacher population.

Example: Denver Public Schools
While piloting personalized learning in several classrooms, teachers and school leaders quickly found that technology issues, such as signing on to programs and laptops, cut into instructional time. As a result, DPS ensured teachers could trouble-shoot some of the easy fixes, and also funded technology specialists, available in these schools, to make sure devices and programs ran smoothly.

Work with what's free, find its limitations, and then invest in the appropriate solution.
After creating their personalized learning visions, some systems in the first cohort realized they had locked themselves into multiyear contracts. When these systems initially signed contracts, they did not realize that these vendors might not be able to fulfill future technology needs defined by the vision. Some systems have therefore encouraged schools and teachers to work with free tools, such as Google Apps or Khan Academy, before moving toward a solution that requires an investment.

Invest in robust broadband and wireless infrastructure before heavily investing in devices or software.

Purchasing hardware or software without first investing in infrastructure will be a wasted investment and can kill buy-in and momentum at the school level. Enthusiasm for technology-enhanced learning can quickly be dampened if the infrastructure doesn't support consistent connectivity. Don't forget about other infrastructure needs as well, such as the number and placement of electrical outlets and flexible furniture.

Invest in data access, collection, analysis, and application.

The ability to access and analyze data drives personalized learning. Systems must ensure that they have accurately identified the data required, develop clear ways to collect the data, establish ways for various data systems to interface with one another, and find easy and accessible ways for multiple stakeholders—especially students, teachers, and families—to have access to data. Today, there are many data vendors in the education universe, but not all offer robust products. Systems should carefully vet different products to identify and implement a solution that is both teacher- and student-friendly, interfaces well with current data collection systems, and meets state reporting needs.

While this section focuses primarily on technical and financial barriers, we acknowledge that other barriers may exist, including stakeholder resistance to technology use in the classroom, and that training, support, and change management are necessary to address these issues and ensure high-quality implementation. Read more about mitigating these challenges in Lesson 4 and 6.

Summary of key takeaways:

Lesson 3: Make wise investments in infrastructure and technology

Lesson 3.1: Define teaching and learning first, and technology second.

Lesson 3.2: Identify and mitigate potential barriers to effective technology implementation, particularly those that create financial burdens.

Lesson 4: Invest in human capital

High-quality personalized learning will depend largely on the teachers who facilitate it. Even with the best technology, teachers will not be able to effectively deploy new models and tools until they deepen their understanding and practice of personalized learning. Another priority of systems will therefore be to identify the human capital supports (e.g., policies, staffing structures, professional development and coaching) required to sustain the vision.

> **KEY QUESTIONS:**
> - What role do we expect teachers and other adults to play within a personalized learning environment?
> - What professional development and supports should we be providing to our teachers, school leaders, and administrators?
> - What are the barriers to successful implementation of personalized learning?

LESSON 4.1: Define the competencies required of teachers and adults within a personalized learning environment.

As system leaders define the needs of technology to enable a vision, they must also define the role of the teacher, and other adults, in implementing personalized learning.

Example: Denver Public Schools
Given the desire to provide students with a greater level of agency, DPS redefined the teacher's role to be one that facilitates learning rather than one that solely delivers content. Additionally, DPS reimagined the role of community partners, who can act as mentors and part-time teachers to provide more real-world experiences for students. So, for example, instead of lecturing students, teachers will be expected to increase student agency, connecting students to resources and partnerships that can foster real world learning experiences. This shift in competencies requires teams responsible for recruitment, selection, and preparation to adjust the competencies sought in teachers, as well as the professional learning experiences that can develop these new competencies.

LESSON 4.2: Make a deep investment in aligning educator effectiveness and support systems to the personalized learning vision and principles.

Personalized learning is destined to fail without sufficient attention to and investment in educator effectiveness and support systems both prior to the start of school and embedded on the job. System plans to fundamentally change and improve teaching and learning must be grounded in appropriate professional development structures, including giving opportunities for teachers to observe strong personalized learning practices, and equipping them with the tools to evaluate and modify their own practices. However, with teacher evaluation systems and Common Core implementation in process in many districts, leadership teams must align this type of professional development with existing efforts.

If you conducted a thorough needs assessment, you should be able to answer the questions below, which can highlight some key opportunities and challenges:

- Given the envisioned shift in teaching and learning, what is the appetite and capacity of teachers and school leaders to take on or support this work?
- If our teachers are not currently prepared to teach within this model, what will be required to develop or recruit the appropriate pipelines? How should we support current teachers, school leaders, and administrators to move toward personalized learning?
- What concerns do we have, and how can our system mitigate these concerns?

Examples of human capital supports deployed by systems include:

Providing faculty and staff with a variety of ways to begin learning about the fundamentals of personalized learning.

Example: Henry Country Schools

Henry County Schools purchased an online course that serves as a foundation to the basics of personalized learning, establishes a common vocabulary in the district, shares research and models, and gives faculty and staff an opportunity to learn more and exchange ideas. The district can tailor the course to be specific to its vision and terminology, which is particularly helpful in large districts with many schools.

In HCS, tours of the local blended learning academy have helped create comfort with and excitement around the tenets of personalized learning among HCS staff. These tours provide educators with the chance to see personalized learning in action and the opportunity to ask students about their experiences. To expose an even greater number of HCS staff to new school models, the district will require new personalized learning schools to offer regular tours. This expectation not only builds the expertise of visitors, but also creates a layer of accountability as each school learns to tell its story effectively. School visits also provide an impetus for continuous improvement and development as visitors ask probing questions.

Building new pipelines of teachers who are ready and willing to personalize learning.

Example: Dallas Independent School District

DISD works with local human capital providers to prepare teachers for its classrooms, even before they are hired. DISD will expand relationships with local universities and alternative-certification providers (e.g., Teach For America) to identify candidates for personalized learning schools and help teacher preparation providers revise program curricula to include personalized learning principles. Districts may also place student teachers in schools where personalized learning is the norm, to build the numbers of teachers who are trained in this type of environment. Schools may consider incorporating internships for administrators to serve in personalized learning schools as part of capacity-building or formal leadership preparation efforts.

Providing embedded, on-site coaching for teachers.

Example: Riverside Unified School District

RUSD will provide personalized learning pilot sites with access to a trained coach who will support staff as they transition to the new environment. Coaches will be identified among school staff, or brought in by the district. Support will include in-class collaboration, modeling of personalized learning, and teacher training on new systems to provide personalized instruction to students.

Example: Denver Public Schools

In order to spread personalized learning practices more widely, DPS hired teachers who had successfully personalized learning for students in their classrooms as "personalized learning field managers." These field managers not only provided individualized coaching to teachers, but also held interactive webinars, visioning sessions for schools, and various meetups where training sessions were run by teachers for other teachers.

LESSON 4.3: Promote policies that ensure effective human capital recruitment and development.

Identify and change policies or practices that cause barriers to human capital innovation.
Most systems don't have tangible examples of successful policy changes yet, but the systems in the first cohort consistently flagged flexible staffing models, as well as seat-time flexibility and competency-based mastery, as significant challenges. Systems must acknowledge upfront the policy and practice changes that will make true innovation and improvement difficult and develop a plan to address these barriers. For example, if you want students to be able to learn "anytime, anywhere," you need to acknowledge this objective upfront, and develop a plan for that allows for flexibility in teacher schedules and seat-time waivers. Asking schools to innovate without removing restrictive barriers will lead to frustration among school leaders and teachers and incremental impact.

Think critically about the pros and cons of external providers of professional development.
Evaluate the pros and cons of working with external partners to support professional development, particularly as it relates to technology and digital learning.

Consider collaborating with local teacher colleges and alternative-certification programs.
As a talent pipeline, these programs can act as a valuable partner in supporting teachers and schools as they implement personalized learning models. Learn what efforts these programs are making, if any, around revising their instruction to include personalized learning and consider forging mutually beneficial strategic partnerships.

Though colleges and alternative-certification programs may provide worthwhile professional development, it is worth understanding where a program may fall short, and where supports may need to be developed internally. Explore opportunities to influence how these programs could better prepare teachers and leaders for a personalized learning environment.

Regardless of the provider, be it an institution or an ed tech company, very little professional development today holistically incorporates personalized learning elements such as hardware and software familiarity, Learning Management Systems, data analysis, and online content on thriving in an evolving teacher and principal role. Successfully developing and implementing these professional development modules requires resources and a significant commitment from the school and system. An individual or small team who deeply understands the instructional vision must be around to help teachers connect the dots between the instructional approach and the tools available to support that approach.

Summary of key takeaways:

Lesson 4: Invest in human capital

Lesson 4.1: Define the competencies required of teachers and adults within a personalized learning environment.

Lesson 4.2 Make a deep investment in aligning educator effectiveness and support systems to the personalized learning vision and principles

Lesson 4.3: Promote policies that ensure effective human capital recruitment and development.

Lesson 5: Choose the right people and partnerships to lead the work

Project management is a necessary, yet often under-resourced, success factor for large-scale transformation. Investing in the right and sufficient resources to coordinate work across organizations, district central office functions, schools, and the community is critical.

KEY QUESTIONS:
- Who should lead this work?
- Which district stakeholders should we convene to get this work started?
- How should the work be structured and governed?
- What added value would collaboration around personalized learning bring? What partnership structures are feasible, and how should we select a partner?

LESSON 5.1: Compose the appropriate team to lead the work.

Developing a thoughtful and comprehensive personalized learning plan requires a comprehensive team of contributors who ideally bring specialized perspectives and skills to the process. The team should represent a diversity of backgrounds, content expertise, and capabilities (e.g., project management, strategy, implementation).

Many of the systems developing plans benefited from a clear structure consisting of a Project Manager, Working Group, and Advisory Group.

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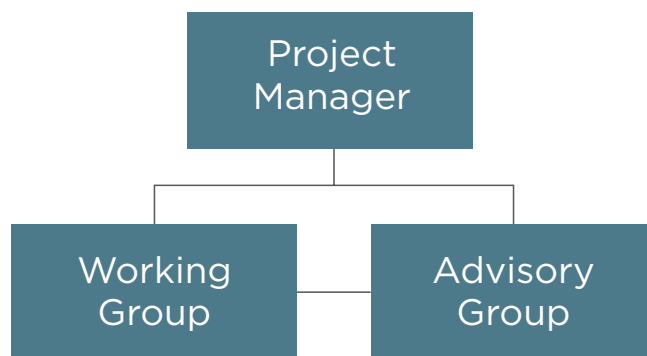
Choose a Project Manager with a track record of influencing others, past success in managing complex projects, and personalized learning knowledge.
An ideal Project Manager has both dedicated time to lead the work and enough authority to manage the group and engage additional stakeholders effectively. The most successful Project Managers had well-developed leadership skills, the ability to generate buy-in, and experience navigating the complicated web of stakeholders. A Project Manager with previous knowledge of personalized learning is an advantage; however, s/he should appreciate technology's power, but not be blindly enamored with the newest software solution or gimmick.

The Project Manager should quickly establish clear operating norms that will last for the duration of the work:

- *Governance:* The Project Manager should ensure that Working and Advisory Groups have defined roles, responsibilities, and expectations, including timing and ways in which these groups will interact with one another. A clear decision-making process should be defined for both the development of the strategic plan and implementation.
- *Project tracking and management:* The Project Manager will be responsible for tracking progress against major deliverables and milestones, especially as the work moves from planning into implementation. S/he will need to develop a robust scope of work: Draft a road map; identify critical path activities; ensure that there are clear timelines, budgets, targets, and owners for those activities. The Project Manager will need to flag any barriers and gaps that might compromise the plan, and proactively identify individuals, teams, and organizations to help mitigate the obstacles.
- *Stakeholder engagement:* The Project Manager, with support from the Working and Advisory Groups, will set the tone for the personalized learning efforts, proactively shaping stakeholder perceptions and expectations through ongoing communications, inviting input through fast feedback loops, and building alignment on proposed recommendations. This will require the development and management of a detailed stakeholder engagement and communications plan (see Lesson 6).

Actively engage cross-functional system leaders throughout the work, within and beyond the Working and Advisory Groups.

Working Group
The Working Group, led by the Project Manager, should take ownership of the project work plan and ensure progress against deadlines, bring research and ideas to the table to shape the thinking, lead change management and stakeholder engagement efforts, and build alignment around proposed recommendations.

Working Groups tend to be most effective when they consist of three to six individuals, depending on the size of the system. Members should bring authority and credibility to the work, and be, or have the ability to influence, key decision-makers. Working Groups should include members from key entities, or departments, responsible for implementing personalized learning. For example, in a district, this would include leadership from curriculum and instruction, technology, talent, and operations. Adding members from supporting organizations, such as local foundations, community groups, and charter school leaders provided a city-wide, holistic perspective. Other stakeholders, such as principals, teachers, students, parents, and community leaders, especially those who have successfully engaged with personalized learning in the past, should also be considered as potential Working Group members. The group should focus on developing the vision, providing feedback on and "reality checking" the implementation plan, and serving as plan advocates across the system.

Working Groups should be prepared to meet on a regular basis—at least weekly—throughout the planning process, and then reevaluate the meeting cadence as you move into implementation. It is important to clearly define and carve out time commitments upfront, so that Working Group members are not "double-staffed" on top of their day jobs. We recommend that 25-50% of each person's time should be allocated to this project to ensure sufficient attention and bandwidth for the personalized learning work. School systems may need to reprioritize other initiatives accordingly.

Advisory Group

The Advisory Group is a small set of senior decision-makers and key influencers who play a significant role in shaping the vision and the path forward for personalized learning. Tactically, this means co-creating, reacting to, and often approving, recommendations from the Working Group. Members of this group will also serve as champions for personalized learning across the system by creating buy-in for the plan and ensuring that the right resources and supports are in place to move forward.

Advisory Groups should include the lead of the harbormaster, district leaders, leaders of partner organizations, and senior representatives from key stakeholder groups (e.g., local government, partner associations).

Advisory Group members should be accessible and participate during the intense strategy work, especially throughout vision development. Advisory Groups typically meet less frequently than do Working Groups—perhaps every two to four weeks—but should be prepared to meet more to review and react to ideas and content, as needed.

Example: Rogers Family Foundation

In Fall 2013, the Rogers Family Foundation convened the Oakland Unified School District, the Oakland Schools Foundation, and Education for Change (EFC), an Oakland-based charter management organization whose five schools are all formerly district-operated schools, to pursue personalized learning for Oakland. Each local organization dedicated staff members to either a Working Group or an Advisory Group to develop a strategic plan to scale personalized learning across the city. Working Group members met three to four times prior to each round of providing updates and receiving critical feedback from the Advisory Group.

Example: Dallas Independent School District

Dallas convened a Working Group of central office staff that included representatives from curriculum & instruction, information technology, school leadership, and college & career readiness departments. The Working Group also included members from the Dallas Regional Chamber and Commit!, its nonprofit partner in personalized learning work. DISD's Working Group met several times a month.

The Advisory Group, led by the district Superintendent, included the Mayor's Chief of Staff, along with representatives from local universities and the Executive Director of Commit!. The group met monthly during the system-level strategic planning phase, and consistent attendance coupled with structured meetings resulted in high engagement and deep investment among the top leadership.

Example: New England Secondary School Consortium

In addition to the working and advisory groups, NESSC created a third group comprised of teachers and leaders within the schools it supports to solicit feedback and input on the development of the plan. This team provided crucial feedback around identifying and selecting schools, and the types of supports and resources schools would need to shift their models. Having practitioners on this team gave the recommendations added credibility. NESSC had two phone meetings and one in-person convening with these groups to solicit their feedback.

SUMMARY TABLE

	Number of individuals	Project interaction	Responsibilities	Type of experience recommended
Project Manager	1	Daily	Establish norms for: • Governance • Project tracking and management • Stakeholder engagement	• Leadership skills • Ability to generate buy-in • Successful navigation of stakeholders • Previous knowledge of personalized learning
Working Group	3-6	Approximately once or twice per week	• Own project plan and vision development, ensuring progress against deadlines and "reality checking" the implementation plan • Lead change management and stakeholder engagement efforts • Build alignment around proposed recommendations	• Be, or have the ability to influence, key decision-makers • Leaders of key entities, or departments, responsible for implementation (teaching and learning, human capital, technology) • Possess "user" perspective
Advisory Group	3-6	Approximately every two to four weeks, and as needed by Working Group	• Co-create, react to, and approve recommendations from the Working Group • Champion personalized learning across the system by creating buy-in and ensuring resources and supports are in place	• Leadership at harbormaster or key partner organization that has significant impact on personalized learning work

Engage beyond the working and advisory group.
Expect and support regular engagement from functional experts from the following departments or groups: strategy, innovation or new schools, data use or performance management, information technology, finance, human capital, and communications, among others. Encourage their involvement in working sessions to help collect and interpret data, provide topical expertise and support decision-making around specific initiatives.

LESSON 5.2: Identify partnerships to enhance personalized learning efforts, aiming for city-wide, cross-sector collaboration.

As mentioned earlier, taking personalized learning to scale across a system or ecosystem may lead to challenges. While systems can address these challenges single-handedly, and many do, others have opted to invite partner organizations to join them.

The best partnerships are those where parties have aligned interests and a desire to learn from one another. Focus on partnerships for areas where you need support but do not have capacity to do so.

Institutions of higher education to support instruction or professional development.

Example: Lake County Schools
LCS's move to flexible learning environments required staff to undergo training and receive continuous support. Through its partnership with the University of Central Florida, the system will provide personalized professional development for teachers, similar to the learning pathways provided to students, to ensure that they are comfortable with new teaching techniques.

Educational technology organizations to support teachers in content curation and data use.

Example: Riverside Unified School District
Riverside Unified School District teachers are enthusiastic about personalized learning, but many are unsure of what it looks like in the classroom. With this in mind, RUSD partnered with Gooru Learning, a nonprofit educational technology organization that provides teachers with online access to learning resources. Gooru will help RUSD teachers learn to use new technology and become confident content "curators" who choose the right learning materials for each student. Gooru will also support RUSD as it creates a new dashboard for data analysis that will empower students with their own data and train teachers to provide effective supports.

Personalized learning "accelerators" to support design and implementation of new instructional models.

Example: Pinellas County Schools
Pinellas County Schools partnered with New Tech Network (NTN), a nonprofit with a positive track record of implementing next generation models in 100+ schools across the country. NTN will help PCS launch a stand-alone pilot high school and implement a comprehensive learning management system that has capabilities far beyond those of the current system. NTN will also provide high-quality professional development to teachers and school leaders.

Community organizations to support cross-sector engagement.

Example: Dallas Independent School District
Dallas Independent School District partnered with Commit!, a regional intermediary organization, to generate external support for district innovation efforts while bringing perspective on new instructional models and national exemplars. Commit! will facilitate a team of representatives from local foundations, businesses, and human capital organizations to act as thought-partners for schools pursuing a personalized learning strategy, and will encourage parent and community participation in design workshops during the planning process.

Charter Management Organizations to support rapid innovation and iteration.

Example: Rogers Family Foundation
The Rogers Family Foundation and the Oakland Unified School District partnered with Education for Change (EFC). EFC, along with other local charter schools, functions as a kind of research and development shop for the group; because charter schools in Oakland are smaller and face fewer policy barriers, they are able to test out new ideas and iterate on them faster, passing along what works to the district schools.

Harbormaster-led or regional consortia, supporting ecosystem or state-wide change.

Example: Colorado Education Initiative
The Colorado Education Initiative (harbormaster) and the Colorado Department of Education came together with three school districts (Adams County School District 50, Colorado Springs School District 11, and Thompson School District) to create statewide momentum for personalized learning at scale, and to create a policy environment that supports the concept. The participating districts will serve as models for other Colorado districts. Together, the consortium aims to accelerate cross-district learning to more rapidly achieve district- and state-wide scale of next-generation models, with the harbormaster as facilitator. Additionally, the Project Manager of CEI collaborated closely with Project Manager of Denver Public Schools (DPS), ensuring that DPS, while creating its own personalized learning vision and plan, could align itself to statewide efforts, and take advantage of common learning platforms supported by CEI.

Multiple partnerships to support holistic city-wide efforts.

Example: New Schools for New Orleans
NSNO has partnered with both Educate Now! and 4.0 Schools to further its vision for personalized learning across the city. The nonprofit organization Educate Now! supports blended learning exploration and implementation in schools, funds personalized learning boot camps, and provides on-site support. Educate Now! will play an important role in increasing personalized learning awareness and supporting innovation through pilot programs and learning communities. Nonprofit 4.0 Schools will bring new leaders and entrepreneurs to New Orleans and support them as they design, test, and refine innovative school models. NSNO has strong experience incubating organizations launched by New Orleans education entrepreneurs and connecting them with teachers and school leaders. 4.0 Schools understands blended learning and can support teams in organizational design and technology integration.

Consulting firms to add additional capacity to execute the work:
One final type of partnership to consider is a Technical Assistance Provider. This support tends to be more temporary, but can play an integral role in both the development of the personalized learning plan and implementation. Technical Assistance Providers serve as critical friends, knowledge facilitators, project managers, and "doers." These partners tend to provide the most leverage in four areas:

— Project management, including providing an overall organizational framework for the work, creating work plans, driving deliverables through to completion, and setting the Project Manager up for long-term success.
— Content expertise on personalized learning, by informing the vision creation process and strategy design, sharing best practices and innovative models from other schools and districts, and pushing the thinking on possible solutions.
— "Boots on the ground," serving as additional capacity to develop & implement the needs assessment, analyze and synthesize district data, engage stakeholders, and support other analytics as needed.
— Accountability, by acting as an outside entity helping to drive project management—creating both visibility and accountability for the work, particularly when system leaders face multiple priorities and deadlines simultaneously.

While diverse in structure, all of these successful partnerships have three common elements:

- Alignment of interests and shared beliefs about personalized learning.
- Clarity of roles and responsibilities for each partner, anchored on strengths and assets each brought to the partnership.
- Trust, strengthened and deepened through preexisting relationships where possible.

Summary of key takeaways:

Lesson 5: Choose the right people and partnerships to lead the work

Lesson 5.1: Compose the appropriate team to lead the work.

Lesson 5.2: Identify partnerships to enhance personalized learning efforts, aiming for city-wide, cross-sector collaboration.

Lesson 6: Focus on change management and stakeholder engagement

If a personalized learning strategy is rooted in both transformational shifts in teaching and learning and a different set of standards and outcomes expected of students, this amount of change requires a shift not only in the way resources are allocated, but also in the mindsets of nearly all stakeholders involved. Therefore, personalized learning will succeed, in pilot mode or at scale, when systems make a deep investment in change management, including facilitating dialogue and building support with a broad range of stakeholders.

KEY QUESTIONS:
- Why should we engage in change management?
- Who are the critical stakeholders we need to bring along in this process?
- What concerns might stakeholder groups have, and how do we mitigate these?
- How should we solicit involvement and input in decision-making?

Although this is "Lesson 6," working through this section may help inform who should be engaged during the needs assessment (Lesson 1).

LESSON 6.1: Transition is hard—emphasize the importance of change management.

Personalized learning will require not only tactical changes around infrastructure and instruction, but also significant cultural shifts. Implementing new personalized learning processes, technologies, data systems, or policies is just the first step. The second is more daunting: changing how students expect to learn, how teachers teach, and how adults, both inside and outside schools, provide support.

Example: Example: New England Secondary School Consortium
NESSC learned that from a communications standpoint it is vital to frame the shift to more personalized learning approaches as the logical next step in a district's ongoing evolution and pledge to continuously improve its practice. NESSC learned the hard way that promising radical, revolutionary change after a school or district retools and re-launches its personalized learning work creates far more anxiety among key groups—notably parents. NESSC also notes that it is important for building leaders to simultane-ously challenge yet reassure staff that the vision of personalized learning is realizable and represents the logical evolution of their focus on improvement in the name of ensuring that all students are college- and career-ready.

Some of the work in which you have already engaged (understanding current context through the needs assessment, building the right coalition of Working and Advisory Group members to establish a vision, and now talking to more stakeholders) are key steps for a successful change process.

As you engage in change management, hold yourself accountable. This has two components: progress against critical milestones ("Are we executing against the plan?") and progress against changing perceptions, mindsets, and behaviors ("Are stakeholders embracing and internalizing personalized learning?"). Progress against your change efforts should be managed like any other initiative with a plan and corresponding metrics.

LESSON 6.2: Identify the breadth and interest of stakeholders who should engage with the planning and implementation of personalized learning.

The first step in building an effective stakeholder engagement strategy is identifying the groups of individuals who should be engaged. Stakeholders include those who are closest to the work and can provide substantive guidance to make better choices, groups who need to provide periodic input and stay informed, and groups will serve as champions, or as potential detractors, depending on the level of engagement. These groups should be narrow enough to ensure that messaging and engagement strategies are reflective of specific needs. Groups could include:

- Students who are the "end users" experiencing the change most directly in the classroom
- Instructional staff, broken out by subgroup (e.g., grade level, content expertise, tenure)
- Principals and school leadership teams
- Parents and families, broken out by subgroup (e.g., ZIP code, demographics, income)
- District staff and affiliates (e.g., Cabinet and leadership team, department officers, general staff, Board of Directors)
- Community partners (e.g., community groups, local businesses and philanthropies, government officials)

The list of potential stakeholders to engage will grow quickly. Prioritize stakeholder groups based on their ability to affect the success of implementation. Start by clearly articulating the risks associated with choosing not to engage specific stakeholder segments, or engaging them in a less authentic manner. Then develop a high-level plan to mitigate those risks, with a keen eye toward course-correcting as the work unfolds.

The second step is assessing the appetite of each group to take on or support personalized learning, both in concept (e.g., "I believe personalized learning will improve student learning at my school") and in practice (e.g., "I have the interest and capacity to implement personalized learning in my school"). The needs assessment described in Lesson 1 will help jump-start the process, especially with system leaders, school leaders, and teachers, and it will need to be supplemented by ongoing outreach—via surveys, focus groups, one-on-one meetings, or other engagement mechanisms. You should work to identify each group's mindsets and behaviors, and particularly their comfort and concerns with the changes that personalized learning will bring.

LESSON 6.3: Craft a plan to promote awareness, deepen engagement, and mitigate concerns.

The final step after developing a clear picture of who the stakeholders are and what motivates them is to craft an action plan with specific strategies that: promote awareness, deepen engagement, and mitigate concern. However, simply communicating or "informing" about the work in progress may not be enough for some stakeholders. These groups may crave more direct involvement, and may look for opportunities to shape both the personalized learning vision and how it gets implemented. School leaders and teachers in particular—those ultimately responsible for the daily work—need to feel a sense of ownership over any new prescribed activities so they are not overwhelmed by the change or feel "put upon" to modify behaviors.

Promote awareness.
Create the time and space for best-practice sharing. Show stakeholders what "great" personalized learning looks like, both locally and nationally. Use visits to schools implementing personalized learning models to educate and inspire key stakeholders and to demonstrate the benefits of these environments for students. Try to show a variety of models to highlight the different options available and help find the best match.

Example: Henry County Schools
Henry County Schools' vision for personalized learning explicitly addresses the need for stakeholder engagement at every level by describing the "Desired Stakeholder Mindset and Behaviors" for each key group: students, teachers, principals, parents, and Central Office staff.

Through its needs assessment, HCS determined that teachers and leaders had a lot of enthusiasm about exploring the benefits of personalized learning, but they had less clarity around how it could look and feel in the classroom. For example, principals across the system were at various stages of understanding of and willingness to implement personalized learning, while teachers raised concerns about how best to shift their practice from presenters of content to empowered facilitators of flexible learning experiences.

To address these questions, HCS initiated a large-scale campaign to build awareness and support from teachers and school leaders by exposing them to multiple personalized learning-intensive models. This included site visits to national personalized learning exemplars and tours of district schools already implementing these strategies. The district has also held open meetings for teachers and district staff to learn about and provide input on the district vision and plan.

Deepen engagement.
Systems found that engaging stakeholders in a two-way dialogue, rather than a one-way share-out or town hall, yielded richer input and generated more excitement for personalized learning.

Example: Denver Public Schools
As DPS sought to develop its vision, the Working Group, in conjunction with its Technical Assistance Provider, conducted one-on-one interviews with more than 40 central office staff in various departments, board members, and community leaders to get a sense of their interest in and understanding of personalized learning. Using the findings, the Working Group synthesized a working-draft vision for personalized learning. However, the Working Group also felt that a critical voice was missing—that of students. The group paired up with several local design thinking experts to design and implement a two-hour-long session with students, called an "unfocus group," for them to talk about their hopes for their future, as well as their ideal (and not so ideal) learning environments. Their insights, and their words, became inspiration for the Working Group to refine its vision, with student agency as the connective tissue for the vision. Engaging these students created momentum for personalized learning across the school, both among students and staff.

Authentic engagement is a two-way street where each party both provides input and learns. Stakeholder engagement that is treated as a box-checking exercise to keep groups apprised of plans in which they have no voice will almost certainly fail to generate deep support for the work. Effective change management requires time and resources, especially in the form of leaders equipped to engage the various stakeholders authentically.

Summary of key takeaways:

Lesson 6: Focus on change management and stakeholder engagement

Lesson 6.1: Transition is hard—emphasize the importance of change management.

Lesson 6.2: Identify the breadth and interest of stakeholders who should engage with the planning and implementation of personalized learning.

Lesson 6.3: Craft a plan to promote awareness, deepen engagement, and mitigate concerns.

Lesson 7: Foster continuous improvement and learning throughout implementation

Let's face it. No one has yet cracked the "personalized learning nut," and even the best school models and systems implementing personalized learning continue to evolve over time. Therefore, continuous improvement, like change management, is critical to long-term success. As you engage in the work, constantly ask yourself—Is what we're doing working to achieve our vision? If not, what can we learn and adapt to make our efforts more effective?

KEY QUESTIONS:
- How does the approach to continuous improvement look when applied to personalized learning?
- How do we create the right pilot strategy for personalized learning?
- What do we need to think about as we select and design schools?
- How will we share best practices and foster opportunities for collaboration? How can we create and sustain a culture of innovation and continuous improvement throughout our system?

LESSON 7.1: Build upon current improvement practices, and instill a mindset and practice of quick iteration and improvement.

A thorough analysis of existing continuous improvement assets and gaps in the school system will increase the likelihood of success for a pilot process to grow effective school-based examples of personalized learning.

Schools and systems have become increasingly skilled in using data to drive improvement. Teachers employ the basic "plan-do-act-reflect" feedback cycle in the classroom, and schools and districts draw on feedback to make program improvements. Personalized learning, and the technology to support it, lends itself to teacher-driven innovation and accelerated feedback loops, but a major mindset shift is needed to support and scale this work: from long-term planning with annual accountability targets to a more fluid, lean, and rapid innovation cycle model. Schools will need to use the principles of (or principles similar to) design thinking and The Lean Startup[6], including deeply understanding the end user (whether it is the student or the teacher) and then rapidly prototyping new designs, failing fast, and making adjustments, while capturing learning along the way. Harbormasters and partners can be essential for helping to create and sustain a continuous improvement mindset across a system.

Take stock of your existing approach to continuous improvement, perhaps during an initial needs assessment.

Key questions include:

- Do we have a group of teachers, principals, and district leaders who have fully internalized a continuous improvement mindset? Do we have a group of leaders who understand the concepts of design thinking[7] and rapid prototyping, and can they analyze impact and make adjustments accordingly? How can we design a plan that builds on the strengths of these leaders?
- What data do we already collect that is related to personalized learning, and how can that inform our work?
- What continuous improvement processes, including cross-school learning structures, are already in place? What existing processes will need to be changed or tailored to reflect personalized learning work?
- What is our track record in learning from pilot processes and scaling what works? Under what conditions has that gone well in the past? When did we fail, and why?

Example: Denver Public Schools

Recognizing that a continuous improvement mindset was necessary to improve on innovative practices, DPS dedicated a staff member to promoting design thinking at various levels of the organization. By holding "POP-up" (Problem of Practice) luncheons in the cafeteria, she recruited different leaders in the organization to bring problems they were wrestling with to these luncheons, and allowed any and all individuals who wanted to participate to engage in a short design thinking session to come up with solutions. These luncheons not only created meaningful, spontaneous collaboration, but also helped stakeholders across the system develop comfort with the design thinking process.

LESSON 7.2: Identify the appropriate pilot strategy.

Similar to startup tech companies, you will see more success when starting small and learning along the way, rather than making large initial investments. Moreover, ensure you provide adequate room for innovation while still providing some standard level of support across a system.

As you develop an approach to scale personalized learning, consider the following:

- *The starting point.* The starting point for systems should include a specific rationale for the size, scope, and sequence that allows for what is learned in the pilot stage to be translated into actionable steps that can achieve greater scale. For example, will the system learn faster by making small investments across many schools with teachers most excited about personalized learning? Or should the system commit to investing heavily in a small number of schools to become school-wide examples? Contextual factors—such as the system's "problem to solve," principal leadership, past change efforts, and the culture of innovation and learning—will inform these strategic choices.

In Henry County Schools, the best-prepared secondary schools are leading the charge, with other schools following as they are ready. Pilot schools are those that are ready, willing, and able to implement personalized learning through a school-led, two-year instructional model design and implementation process. HCS decided to begin full implementation with secondary schools; elementary schools will implement only certain components of personalized learning until the system has identified an elementary-level digital learning platform. The process to select participants in the pilot will include assessing a school's "will and skill," based on its vision, enthusiasm, and capacity to implement personalized learning.

Personalized Learning Implementation Plan

Henry County's three-pronged implementation plan will encourage those that are ready to lead the way, while also preparing others to follow

Henry County's PL implementation plan consists of three interralated initiatives:

1. *Launch cohorts of schools* that are ready, willing, and able to implement PL in a school-led two-year instructional model design and implementation process, starting with secondary schools

2. *Develop capacity in other schools* and create district-level supports to enable broader PL implementaton

3. *Build community awareness and support for PL* among parents, community members, higher eduction, and other HCS stakeholders

HC & PL Design schools

All HC's Schools

Broader HC & Community
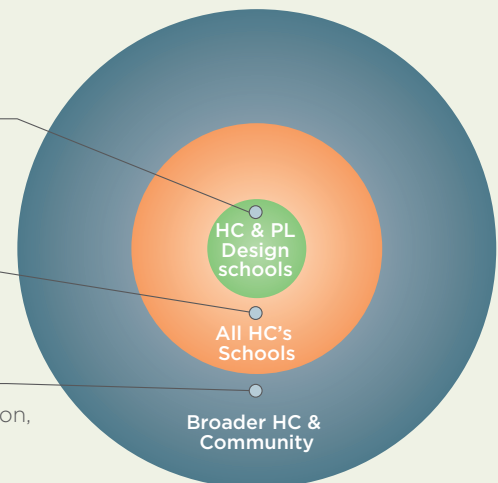
● *The combination of "loose and tight" controls.* Building from the principles created during the visioning process, systems must think about the balance between school-based innovation and the standardization necessary to support cross-site learning and economies of scale. For example, a system may want to design tight controls over areas such as the vision for personalized learning, outcome measures to compare effectiveness, and requirements to share learning. An area with looser central control may include the choices that schools make in how they approach personalized learning, which include what technology is being used and how schedules work within the building. When prioritizing policy barrier changes, system leaders should seek to alleviate the barriers where they hope to allow schools freedom to innovate. For example, if systems allow school teams to decide how a school schedule runs, they should seek to eliminate seat-time requirements and policies that set a fixed number of hours in the school day.

> **Example: Colorado Education Initiative**
>
> For cross-district groups or groups that include a diverse set of schools, building common school design parameters can help create consistency. The Colorado Coalition is developing a menu of options for its districts and schools to consider, including both structural designs such as competency-based pathways and instructional designs such as use of varied and frequent assessments. Pilot schools will implement these design changes slowly to help them monitor results and correct course as needed. Simultaneously, the Coalition will identify lessons learned from the pilot schools, helping to build awareness around and educator support for the work and prepare districts to scale successful efforts.

- *Supports available to schools.* Supports can take many forms and should be aligned with the system's decisions concerning school autonomy. For example, a school system can provide knowledge-building support in the form of webinars and/or visits to schools with promising personalized learning practices. Support can also come in the form of capacity-building—design-thinking workshops to help schools fine-tune their plans, coaches, or strategic planning supports—or through funding, policy flexibility, or technology. One approach to effectively designing a support plan is working with schools to identify the areas or assumptions that are most likely to derail their efforts, and then to systematically address those barriers with supports that augment their capacity for design and implementation.

> **Example: New Schools for New Orleans**
>
> In New Orleans, some local schools had already begun early implementation of personalized learning. NSNO will provide different levels of support to schools based on where they are with personalized learning. For schools that are interested in finding out about the potential of personalized learning, but have not yet developed a vision for their schools, NSNO partners will expose school leaders to these practices and curate a set of readings and videos to introduce them to successful models. For schools that have some knowledge of what is possible through personalized learning, but may have room to refine their vision for implementation, or are already actively engaged in it and would benefit from collaboration, system leaders will coordinate a series of site visits to innovative, high-quality school models in other cities and help these schools develop implementation plans with support from external consultants.

Lesson 7.3: Take school selection and design as seriously as implementation.

Creating effective personalized learning proof points requires an effective selection process in order to choose the first set of schools ready to pilot personalized learning.

Design the selection process and criteria
- First, decide what is most important for the pilot phase of the work. For example, is it the geographical representation of schools? Is it a mix of grade levels? Or, is it a focus on one grade level, and one subject area?
- Determine which criteria are preferred ("nice to haves") and which are essential and non-negotiable.

- Decide what needs to be consistent among all selected schools and where variation will help create the optimal cohort to achieve the goals you have set out.
- Assemble a selection committee that seeks to select school teams based on quality, rather than politics.
- Seek school teams that carry a continuous improvement mindset.

Leverage the application to provide school teams with important information
- Reinforce the vision and principles for personalized learning by explicitly stating them and providing supports as necessary.
- Clarify the criteria for selection.
- Outline expectations for schools if they are chosen to enter into the design phase. Oftentimes this includes the criteria for launch readiness and expectations, particularly around the timeline for the design and implementation phases.

Consider external partnerships for selection and design
- Create an RFP process to identify partners to help both on selection and design. When time is limited, and capacity for school redesign is lacking, an outside partner can help design an effective selection and design process. However, be mindful of the investment (time and money) required for this support.
- Ensure that external partners are clear on your own vision and non-negotiables as selection and design are planned.

Align funding resources to support the process
- Align funding incentives to the strategy (e.g., invest smaller amounts of money in promising innovations and set up ways to learn quickly how successful the approach is).
- Ask schools to describe the resources they are dedicating to support the effort (financial, personnel, etc.).

Example: Henry County Schools:
HCS used a competitive selection process to identify six visionary, high-capacity "School Design Teams" that were committed to redesigning personalized learning schools in Fall 2015. The RFP was designed to identify visionary, high-capacity applicants that wished to engage in an intense, multiyear effort. A commitment of substantial time and resources was required, including but not limited to: establishing a Project Manager, developing a Working Team, and ensuring high levels of engagement from key leaders and stakeholders. Most importantly, HCS leaders were clear about their intent to work only with high-functioning teams that had the capacity to facilitate bold innovation at the school level.

Example: Rogers Family Foundation:
RFF ran a multi-step competitive grant process to identify and support schools to transform into blended learning sites. School teams received the application, and then had an opportunity to read and ask questions before applying. Seven schools won small planning grants to spend three months deepening their understanding in preparation for a final pitch of their plans and proposed budgets to a panel of experts and foundation staff. Four schools were selected for launch grants and project support, with payments spread out over two to three years.

LESSON 7.4: Create opportunities for best-practice sharing and learning across the system.

Systems crave, and benefit from, best-practice sharing and opportunities for collaboration
Systems have expressed interest in regular convenings to discuss overall project implementation and overarching issues such as educator effectiveness, blended learning, and change management; and in content area "communities of practice" for leaders with similar roles (e.g., Chief Technology Officers). Examples of how systems are implementing collaboration structures include:

District-wide convenings.

Example: Riverside Unified School District
Riverside Unified School District held its first annual Personalized Learning Summit for school and community business leaders in January 2014. The Summit was designed to outline RUSD's vision of personalized learning and the key components needed to make it effective. Over the course of three days, RUSD teachers, parents, board and cabinet members, and administrators attended speaker sessions, conducted school visits, and participated in table talks to deepen their understanding of what personalized learning looks like and how it can be leveraged to increase student achievement. (Visit for a sample schedule from this year's Summit.) Each year, RUSD plans to bring together national thought-leaders in personalized learning and technology innovation spaces who will address the topic and provide opportunities for stakeholders to discuss how to successfully implement personalized learning strategies.

Example: Henry County Schools
Henry County Schools held a two-day convening for its selected design schools, including national experts and giving each school the opportunity to share its school-level vision for PL and pose a consultancy question to the larger group. (For the agenda from the HCS convening, visit the website.)

Site visits.

Example: Lake County Schools
Lake County Schools organized site visits for teachers, principals, and district staff to districts with successful personalized learning implementations. Site visits help new school design teams develop a picture of what student-directed learning looks like in practice, and provide an opportunity for design teams to learn best practices from others who have done similar work.

Resource banks.

Example: Riverside Unified School District
Riverside Unified School District's partner, Gooru Learning, will work with teachers in personalized learning pilot schools to create a bank of online learning resources. This resource bank will showcase content that RUSD teachers have created and enable other teachers to discover new materials to use in their classes.

Monthly Professional Learning Community (PLC).

Example: Denver Public Schools

As part of a larger initiative at DPS to create "affinity groups" for school leaders, a group focused on personalized learning gave school leaders—both those who were implementing as well as those who were in planning stages—the opportunity to participate in a community of peers. The leader of the affinity group also held special topic "Google Hangouts" to allow for more frequent learning by holding meetings using a virtual format.

Summary of key takeaways:

Lesson 7: Foster continuous improvement and learning throughout implementation

Lesson 7.1: Build upon current improvement practices, and instill a mindset and practice of quick iteration and improvement.

Lesson 7.2: Identify the appropriate pilot strategy.

Lesson 7.3: Take school selection and design as seriously as implementation.

Lesson 7.4: Create opportunities for best practice sharing and learning across the system

Conclusion

These early trailblazers demonstrate the breadth and depth of work and resources required to successfully implement personalized learning at scale. Beginning with a needs assessment that informs a renewed vision of teaching and learning, leaders must continue to think about the interdependence of human capital, technology, and policy, and the importance of communication, stakeholder engagement, and continuous improvement. Note that this work requires not only a sense of urgency, but also patience. Seeking to scale personalized learning across a system without understanding what works on a smaller scale can lead to unwise, cost-heavy investments. Moreover, personalized learning cannot exist as a stand-alone initiative: Seek ways to make personalized learning an acceleration of the vision the system already stands behind. As you engage stakeholders, aim for transparency and "fail forward," using failures as opportunities to learn new lessons and improve practices along the way.

This effort is not without its challenges. However, this enormous effort also yields an unprecedented opportunity to provide students with a new way of learning, and preparing, for a constantly evolving world. We hope that this guidebook has encouraged you to think not only about the challenges of personalized learning at scale, but the promise it has to offer your students and community.

For a practical tool to help measure your progress against this work over time, please visit our website for a copy of our Personalized Learning Harbormaster Rubric, which contains a holistic view of what you, as a city-leader, should seek to accomplish if you hope to successfully scale personalized learning across your city or region.

A WORKING DEFINITION OF PERSONALIZED LEARNING

Personalized learning seeks to accelerate student learning by tailoring the instructional environment—what, when, how and where students learn —to address the individual needs, skills and interests of each student. Students can take ownership of their own learning, while also developing deep, personal connections with each other, their teachers and other adults.

GETTING STARTED

This is a working definition of personalized learning that is intended as a tool to help educators design student-centered instructional models. These attributes and tactics were developed from the practices of a number of leading schools. They are grouped together to offer a comprehensive view of the possible. No one school fully employs each of these today. Start where you want and progress from there.

LEARNER PROFILES

Each student has an up-to-date record of his/her individual strengths, needs, motivations and goals.

STRENGTHS & NEEDS — How might we capture each student's current level of mastery within each of the dimensions that we believe are essential for his/her success (e.g. academic standards, skills)? In what ways might we highlight a student's gaps to draw attention to their individual needs?

MOTIVATIONS — How might we support each student in understanding and articulating his/her interests and aspirations?

GOALS — How might we support each student in setting personalized goals within each dimension that we believe is essential for his/her success? In what ways and how frequently might we ask students to reflect on their progress and adjust their goals accordingly?

INFORMATION & FEEDBACK — In what ways and how frequently might we provide timely, actionable information and feedback to each student? How might we also provide that information to their teachers and families?

PERSONAL LEARNING PATHS

All students are held to clear, high expectations, but each student follows a customized path that responds and adapts based on his/her individual learning progress, motivations and goals.

PERSONALIZED LEARNING PLANS — How might we ensure that each student has a learning plan that takes into account his/her strengths, needs, motivations and goals? How might a student's plan respond and adapt to his/her changing needs?

VARIED LEARNING EXPERIENCES (MODALITIES) — What types of experiences (e.g. complex tasks, experiential learning) might our students need to achieve their goals? What are the ideal modalities (e.g. small group instruction, one-on-one tutoring, online learning) to deliver these experiences?

STUDENT OWNERSHIP — In what ways might we enable students to develop and manage their own learning path?

COMPETENCY BASED PROGRESSION

Each student's progress toward clearly-defined goals is continually assessed. A student advances and earns credit as soon as he/she demonstrates mastery.

ONGOING ASSESSMENT — In what ways and how frequently might we assess each student's level of mastery within the dimensions that we believe are essential for his/her success?

INDIVIDUAL ADVANCEMENT — How might we enable an individual student to pursue new learning experiences as soon as he/she has mastered the prerequisite content? How might students attain course credit based on mastery?

FLEXIBLE LEARNING ENVIRONMENTS

Student needs drive the design of the learning environment. All operational elements—staffing plans, space utilization and time allocation—respond and adapt to support students in achieving their goals.

OPERATIONAL ALIGNMENT — How might we deliver all of the learning experiences that our students need, with the resources we have available? How might we build flexibility into our design to enable us to respond and adapt to changing student needs?

STAFFING & ROLES — In what ways might we structure teacher and other educator roles to support our instructional vision? How might we build flexibility into these roles to enable our staff to respond and adapt to changing student needs?

SPACE UTILIZATION — How might we design our physical space to support our instructional vision? Might we use spaces beyond our walls, and if so, how?

TIME ALLOCATION — In what ways might we maximize the time each student spends pursuing his/her goals? How might our student and staff schedules respond and adapt to changing student needs?

GROUPING & CONNECTIONS — How might we group students to enable the varied learning experiences we hope to offer? How might the way we group students respond and adapt to their changing needs? In what ways might we facilitate personal connections between students, and between students and adults?

LEARNER PROFILES · COMPETENCY BASED PROGRESSION · PERSONAL LEARNING PATHS · FLEXIBLE LEARNING ENVIRONMENTS

Endnotes

1. Education Cities defines an education harbormaster as a foundation or nonprofit organization that is leading city-level or regional efforts to dramatically increase the number of high-quality schools by building and coordinating an ecosystem that supports such schools to thrive.

2. Chuong, Carolyn and Mead, Sara. *A Policy Playbook for Personalized Learning: Ideas for State and Local Policymakers.* Bellwether Education Partners, June 2014. http://bellwethereducation.org/publication/policy-playbook-personalized-learning-ideas-state-and-local-policymakers

3. *A Guide to Personalized Learning: Suggestions for the Race to the Top–District Competition.* Innosight Institute, 9/12.

4. The Global Best Practices needs assessment can be found at: http://www.greatschoolspartnership.org/wp-content/uploads/2012/02/global_best_practices.pdf

5. We use the word "iterate" to describe the actions required to conduct iterations on a vision, in the way it is referenced in Stanford d.school's "An Introduction to Design Thinking PROCESS GUIDE." Here, the guide advises that, Iteration is a fundamental of good design. Iterate both by cycling through the process multiple times, and also by iterating within a step—for example by creating multiple prototypes or trying variations of a brainstorming topics with multiple groups. Generally as you take multiple cycles through the design process your scope narrows and you move from working on the broad concept to the nuanced details, but the process still supports this development. For more information, visit: http://stanford.io/1uCaT91

6. Ries, Eric. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses.* New York: Crown Publishing, 2011.

7. Vander Ark, Tom. *Design Thinking: A Human-Centered Approach to Innovation in Education.* Ed Week, July 10, 2014 http://blogs.edweek.org/edweek/on_innovation/2014/07/design_thinking_a_human-centered_approach_to_innovation_in_education.html?utm_source=feedblitz&utm_medium=FeedBlitzRss&utm_campaign=on_innovation

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Carrie leads Education Cities' internal operations and personalized learning work, and provides senior consulting and programming leadership. Prior to joining Education Cities she served as the Senior Director of Strategy and Innovation at the Rogers Family Foundation in Oakland, an Education Cities member, where she developed one of the nation's leading blended learning pilots. Prior to joining Rogers, Carrie was the Director of Human Resources and Talent Strategy at Aspire Public Schools during a period of growth from 16 to 34 schools. While at Aspire Carrie led the development of innovative strategies for teacher and leader recruiting, evaluation, compensation and career ladders. Carrie has also worked as Special Assistant to the Chief Financial Officer of Boston Public Schools, and is a former teacher and school administrator. She is an alumnus of the Broad Residency and Education Pioneers Fellowship programs.

Carrie has a bachelor's in education from the University of Portland and a master's degree in business administration from Boston University. Carrie is the event manager for TEDxBend and has served on numerous boards throughout her career, including Education Pioneers Bay Area, the Oakland Public Education Fund, Cascade Relays Foundation and the Big Sur International Marathon.

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She earned her doctorate in education leadership at Harvard University, where she promoted education entrepreneurship as a Harvard Innovation Lab Fellow, and received her bachelor of business administration from the University of Michigan in Ann Arbor. She has held several board positions and currently serves on the board of The Odyssey School of Denver. She is also part of the inaugural cohort of the Pahara Next Gen Network.