Oakland Personalized Learning Journey

Reflections on a Year of Piloting

July 2016

Executive Summary

Schools in Oakland have pursued many innovative ideas and research-backed approaches over the years and personalized learning is the current strategy schools are embarking are to get to equity for all students. Similar to its blended learning launches, Oakland is launching personalized learning through grant application phases incorporating discovery, piloting, and design. To date, six schools have been selected by a panel of national education experts and personal learning model leaders to launch personalized learning in 2016. The expectation is that these schools will realize a full scale, sustainable personalized learning model within three years of launch. Teachers at these schools have piloted various personalized learning prototypes and observed increased student interest, and are still identifying which metrics serve as leading and lagging indicators of the model’s impact. In this report, we present our learnings on Oakland’s personalized learning journey thus far based on interviews with principals, teachers, and external partners involved with the planning and launch process, as well as secondary research.
I. Background

Oakland is comprised of Oakland Unified School District (OUSD) and 45 charter schools. The city strives to serve its diverse student population through a series of innovative programs aimed at closing achievement gaps and providing the best possible education for all students. The city’s 48,000 public school students are approximately 40% Latino, 30% African American, 14% Asian, and 12% Caucasian and speak over 50 different native languages. Oakland’s diverse student population presents an opportunity to pursue different learning models that can more effectively educate and engage a variety of students than traditional lecture-based teaching methods. In this vein, Oakland has begun the process of piloting and launching a personalized learning program to provide a tailored education to all students that can best suit their individual development needs.

Personalizing learning requires an individual learning plan for each student. The criteria that define personalized learning are still evolving as models mature, but common themes across frameworks include student agency, competency-based progression, and individualized, varied lesson types. This model presented an opportunity for Oakland to accelerate its progress towards achieving its top strategic goals of effective talent programs, accountable school districts, and quality community schools:

1. **Create effective talent programs to recruit, support, and provide professional development opportunities to teachers**
   - Increases teacher autonomy - teachers are facilitators of learning rather than instructors
   - Enables teachers to work with cutting-edge technology, in an innovative teaching model, to achieve better student outcomes
   - Successful implementation of PL requires the recruitment, development, and retention of talented staff and administrators

2. **Make school districts accountable by developing effective school models that manage student performance while adhering to core values**
   - Increased use of technology with built-in analytics will better enable tracking of student performance against goals and real-time adaptation of learning environments
   - Teachers, administrators, and parents will all have a more accurate, holistic view of student and school success, which will drive increased engagement

3. **Provide quality community schools with varied learning experiences that can prepare students for colleges and careers, improve student needs, and close student opportunity gaps**
   - Experiences will be broader and more varied than traditional models due to use of technology and individualized plans rather than uniform lessons for all
   - Opportunity gap will be closed by better tailoring lessons and emphasizing competency-based learning
   - Student needs will be more quickly identified and met due to enhanced tracking of student performance

---

Commonly Cited Personalized Learning Definitions:

**LEAP Learning Framework**:  
1. Learning happens **anytime and anywhere**;  
2. It understands each learner’s needs, strengths, interests, and approaches to learning;  
3. It allows learner to **progress based on competency**; and  
4. Learners **take ownership of their learning and dynamically adjust** to it.

**Mastery Design Collaborative’s 4Ps**:  

In addition to evolving definitions, there is no prescriptive model for how to implement personalized learning. Technology is frequently touted as an enabler to personalization (and it certainly is) but teachers can also utilize project-based learning, experiential learning, small group instruction, maker spaces, design thinking, and even field work to provide a wide variety of learning experiences to each student. The model provides an opportunity for both teachers and students to iterate and find what methods work best.

---

2 [http://leaplearningframework.org/](http://leaplearningframework.org/)  
3 [http://masterydesign.org/](http://masterydesign.org/)
However, to achieve success with a personalized learning model requires a rethinking of traditional classroom-level and district-wide roles. Implementing a plan for personalized learning is a dynamic effort that requires flexibility and an openness to change from students and their parents, teachers and administrators, district-level leaders, and external partners.

**Roles in a Personalized Learning System:**

- **Students**
  - Understand the possibilities from the increased independence provided to them
  - Exercise agency and carve out personal learning pathways
  - Participate in small-group or individual learning, as facilitated by teachers

- **Teachers (Facilitate)**
  - Facilitate learning by encouraging participation
  - Check for student understanding
  - Accommodate needs of all students
  - Support students by sharing expectations and directing to resources
  - Deliver data-driven instruction

- **Teachers (Plan)**
  - Provide feedback on curriculum and classroom challenges
  - Acquire training in personalized learning facilitation and software
  - Include parents and student management in curriculum development

- **Parents**
  - Stay informed of proposed learning plan
  - Monitor student learning
  - Communicate with teachers about student learning in and out of classroom
  - Support development and evaluation of student goals

- **Support Partners**
  - Consult on personalized school design blueprint
  - Provide cohort of schools to observe and collaborate with
  - Provide funding
  - Provide tech support

- **School-Level**
  - Set vision and manage engagement, priorities, and buy-in
  - Encourage participation through idea sharing and constructive feedback
  - Provide infrastructure for teacher collaboration
  - Define clear roles for design/implementation team

- **System-Level**
  - Obtain grant support
  - Ensure state educational standards are met, while adapting evaluations around personalized learning
  - Set guidelines for design and implementation
  - Increase academic rigor, school culture, and climate

Although personalized learning is still in its infancy, several programs around the country have seen positive results thus far. Utah’s Weber School District created a small pilot school dedicated to personalized learning where they are able to create individual learning paths and take advantage of digital content through the Edivate Learn platform. Teachers in the Milpitas Unified School District have been incorporating personalized learning into their classrooms since 2012. MUSD increased availability of assessment data to better track performance and

---

refine instructional approaches, and have also observed that schools with blended or personalized learning models had significantly fewer disciplinary issues.\(^5\) Around the country, Next Generation Learning Challenges (NGLC) -- a national grantmaking organization founded on the core principle of shifting the focus of schools towards learning rather than teaching with educators leading the transformation -- has awarded personalized learning grants to 6 schools in Colorado, 5 schools in New Orleans, and 20 schools in New England, among others.\(^6\) These grants will be used by school districts to plan, pilot, and launch personalized learning.

II. Discovery and Design

Oakland’s strong community and national support has been fundamental to allowing the district to make the required investments in planning, training, and classroom restructuring. The Rogers Family Foundation (RFF), a key grantmaker focused on education in Oakland, began pursuing national grant funding in early 2014 via EDUCAUSE, a national education-focused nonprofit. EDUCAUSE provided the initial funding for the NGLC grant in Oakland, and it was matched at the local level by RFF and other local funders. With this funding, RFF and Oakland launched a personalized learning grant application process for schools in Oakland, called NGLC in Oakland.

As personalized learning is often first viewed as a new model of instruction, educating school administrators and teachers on its definition, benefits, and implementation methodology is a critical first step. Before the grant process began for the schools, NGLC in Oakland organized a series of “Discovery Phase” events for educators to learn more and get excited about personalized learning. The events engaged over 300 educators from over 45 schools in 30 workshops and events hosted by consultative organizations focused on innovation in education (such as the Mastery Design Collaborative, the Alvo Institute, and Education Elements). Workshops covered principles of personalized learning such as individual learner profiles, learning paths, competency-based programs, flexible learning environments, social/emotional learning, and linked learning.

Educators also had the opportunity to visit schools, observe personalized learning in classrooms, and identify for themselves the key drivers required to redesign schools for personalization. In interviews, educators frequently cited these visits as highly motivating and inspiring, generating excitement and ideas among school staff for their grant applications.

Building on the interest established in the discovery phase, NGLC in Oakland launched the planning grant process for schools serious about exploring personalized learning. In hopes of creating high quality personalized learning models, Oakland solicited applications for personalized programs from volunteer schools in a bottom-up approach. This approach not only created significant buy-in amongst interested schools, but also allowed for the self-selection of schools that were prepared and dedicated to the idea of personalized learning. In March 2015,  

\(^6\) [http://nextgenlearning.org/grant_recipients/k12_breakthrough_models](http://nextgenlearning.org/grant_recipients/k12_breakthrough_models)
ten schools were selected based on quality and rigorousness of plans, and awarded between $60,000 and $100,000 in funding, as well as design and pilot assistance from Mastery Design Collaborative, a consultative organization focused on building the capacity of school systems to personalize learning at scale.\(^7\) Schools were appreciative of the structured process of developing a full launch application, which provided them a systematic approach to articulate their visions and a framework to initiate conversations with their staff around personalized learning.

Of the 26 schools that applied for planning grant funding, 10 public schools were chosen – 5 district-run and 5 charter-run – based on the creativity and promise of the solutions detailed in their applications. Some of their ideas include personalizing professional development of teachers, changing class sizes (number of students, adding student teachers, rearranging classroom layouts), using Maker and Fab Labs to engage students in standards-aligned projects of their interest, increasing/creating internship or other off-campus opportunities for students, using adaptive online resources to personalize/blend learning, and designing Montessori-inspired curriculum and projects for middle schoolers.

After receiving their planning grants, schools prototyped and tested their designs in pilot classrooms; this process involved multiple iterations of design, pilot testing, and community engagement with practice webinars and mentor consultation for feedback. As part of joining the NGLC in Oakland planning cohort and participating in the planning process, schools engaged with their cohort members and Mastery Design Collaborative to further develop and refine their plans for launching personalized learning school-wide. Workshops with the Mastery Design Collaborative (MDC) were cited as one of the most useful resources provided. Design sessions with MDC were focused on developing a blueprint that would eventually become the primary application document for launch grants. Within the planning grant cohort itself, the opportunity to collaborate with other cohort schools and schools with existing personalized learning models was critical in encouraging schools to look outside of their own walls for inspiration and innovative ideas.

**Timeline of Personalized Learning in Oakland:**

\(^7\) [http://www.ousd.org/site/default.aspx?PageType=3&ModuleInstanceID=243&ViewID=7b977ed-8e5e-4120-848f-a8b4987d588f&RenderLoc=0&FlexDataID=11390&PageID=26](http://www.ousd.org/site/default.aspx?PageType=3&ModuleInstanceID=243&ViewID=7b977ed-8e5e-4120-848f-a8b4987d588f&RenderLoc=0&FlexDataID=11390&PageID=26)
Planning for personalized learning requires both assessing the current state and anticipating challenges in the implementation process. Addressing the current state includes needs for technology, stable funding, and an understanding of each school’s unique environment. For schools using a technology-based approach to personalized learning, students will need user-friendly laptops with high speed memory, internet access, and storage capacity to utilize online resources easily in the classroom. Some useful online tools and education software like electronic books, wikis, language training and support tools, and modules provide students many of the resources to learn at their own pace. IT staff and software provider partners like Education Elements and Clever can support and address technology issues that will inevitably come up in the classroom. Funding and budgets may need to be restructured to be robust and stable enough to finance salaries (especially if lowering student-teacher ratios), technology resources, and scaling and expansion across classrooms when ready. Finally, understanding of the student environment is crucial when designing and catering the personalized learning model for the school. Different schools and students will have different priorities and goals, such as increasing graduation rates, reducing students’ achievement gaps, and increasing college readiness.

In the transition to personalized learning, challenges centered on devoting appropriate time to planning outside of normal school hours, teaching schools how to launch a prototype classroom (school-level), and adapting to a new instruction model for both teachers and students (classroom-level). For schools, having the right teacher, student, and administrator mindset is key to transitioning. Personalizing learning is often completely different from traditional teaching methods, so its participants must be ready to adapt to these changes and approach personalized learning with a fresh perspective. Staff priorities and goals absolutely must be aligned and administrators need to create an environment and culture that fosters both student and teacher learning. A positive culture will outperform in a personalized learning
program, but an unhealthy culture can be exacerbated by the increased freedoms for teachers and students.

The most important resource to manage in the transition to personalized learning is time. Teachers and administrators often have the necessary passion, but allocating the necessary time to plan, attend workshops, reflect, and collaborate can be difficult, particularly for district schools with competing priorities and that are very strict about hours worked. Principals and administrative leaders will be expected to decide how to prioritize planning workshops and the resources that participate in them, as well as collaboration time among teachers. Schools should also recognize that there are a wide variety of options and possibilities available for implementing personalized learning, and it is critical to devote ample time to exploring these different options and tools available before diving into planning.

Within the classrooms, it is important to support teachers early to shift from the traditional “teacher-centered” mindset to one that is student-centered. Within the personalized learning framework, teachers are expected to play the role of a facilitator more frequently, and that of a direct instructor less frequently. To properly implement this style of teaching, teachers will alter the way they plan their classes and interact with students. It is critical to set expectations for how teachers’ daily lives will change. Designing ever-changing, cross-targeted student small groups, each with different goals, can be very difficult, and teachers will not be able to plan as far out in advance as they may have within a traditional model. They must now plan for multiple simultaneous and asynchronous activities, and may receive shorter notice on every student’s activities and progress through curriculum. It will be important to prepare teachers for these types of changes in their lesson plans and provide them with the tools to effectively manage different learning methods at one time. The longer class periods typically implemented in a personalized learning program may take extra planning to ensure the time is used effectively, and so the construction of lesson plans should be front loaded so that teachers are ready when students reach specific learning targets.

III. Launch

The end of the planning phase culminated with applications for launch grants. Schools submitted design blueprints for consideration and were evaluated based on numerous factors. The process was meant to identify schools in the best position to succeed with personalized learning and highlight bright spots in the Oakland Unified School District that could serve as models for future expansion. A panel evaluated schools based on criteria, including:

1. A guarantee that all students must have a personalized learning plan within three years,
2. A competency-based progression where kids move through learning based on demonstrated mastery,
3. A strong team engaged and well equipped to handle the implementation, and
4. A clear five-year financial plan.
After intensive review, six schools were awarded grants of $350,000 to launch their personalized learning programs in the fall of 2016. These schools comprised of three public charter schools, ASCEND, Lodestar, and Urban Montessori; and three district-run schools, Redwood Heights Elementary, Roosevelt Middle School, and Urban Promise Academy.

After analyzing the application process, several prominent themes emerged from the design blueprints:

- **Emphasis on student agency**
  - Finding: There was a continued emphasis on increasing student agency as administrators stated that a love of learning and increased student responsibility is crucial to closing achievement gaps and providing higher-quality education.
  - Example: St ASCEND, learning is goal-driven. Students customize their own learning plans and creating their own goals with the help of an adult mentor.

- **Importance of dynamic learning**
  - Finding: The schools placed increased importance on dynamic learning, enabling teachers and students to adapt to their environment. This flexibility allowed students to be more comfortable and allows them to learn at their own pace.
  - Example: Urban Montessori, for instance, specifically utilizes dynamic learning by tracking students’ progress using data and then allowing different choices to be made depending on the outcome. Students are asked to demonstrate mastery but can do so in many different ways (e.g., an inquiry-based project as opposed to a multiple choice test).

- **Unified vision among all invested parties**
  - Finding: All schools created a unified vision. They found it was crucial to get a buy-in from the parents, faculty, and students to maximize participation and success of the program.
  - Example: Roosevelt Middle School ensured that parents had bought into their children’s enhanced education by allowing them to participate in their children’s goal-setting and have opportunities to make important choices. By using multiple access points for change, the administration can consult parents consistently and keep them engaged.

- **Holistic education**
  - Finding: The schools sought to mirror real life to create a holistic education for their students by focusing on social, emotional, and personal skills in addition to academics. They accomplished this by numerous mechanisms, but most importantly by making classrooms age neutral and forcing interaction between the grade levels.
  - Example: Redwood Heights Elementary believes in teaching the entire child and focuses on emotional intelligence in many of their activities. The school requires fifth grade students to participate in programs that teach acceptance and tolerance, culminating in a week-long retreat.
Out of the many schools analyzed throughout the planning and launch process, ASCEND and Roosevelt Middle School exemplified two different models of personalized learning success in the Bay Area. As a trial, ASCEND combined half of their English students across the first, second, and third grades into a single English class with three teachers. This allowed students to be grouped based on competency, rather than by age-based grade levels. Personalized instruction occurred in the form of independent reading and projects, as well as online learning programs with teacher facilitation. The program was such a success that ASCEND teachers are excited to adopt the prototype across the entire school for English and Math in the fall. Teachers also acted as ambassadors for the program allowing students to receive approximately three hours a day of personalized instruction. This program helped prove the hypothesis that once personalized learning reaches a critical mass in a school, there becomes a tipping point where the rest of the school observes the pilot’s success and also wants to implement personalized learning.

At Roosevelt, there was a similar story of success. They began by rolling out a personalized learning program for certain math classes and adding more inquiry-based projects in preparation for their formal launch in 2016-17. They created family engagement nights, student led conferences, and community circles to create student agency and buy-in from all parties involved. The initial implementation was such a success that the school will be expanding its math personalized learning program further, and adding humanities as well. This school has exemplified an ideal growth strategy for personalized learning and should be further studied for changes in district-run schools.

Over the 2016-17 school year, these six schools will be launching personalized learning based on the blueprints that they created. Throughout the summer, they will begin to design curriculum, order furniture and technology, and attend conferences to prepare for their personalized learning launch. While the process differs slightly from school to school, the preparation for the launch year is quite similar for the six chosen schools. For example, Redwood Heights plans to spend the summer expanding their established curriculum, as well as starting various focus groups and surveys to ensure a high degree of family engagement. Lodestar, a brand new school, has identified training and onboarding staff in the new model as their highest priority for the summer. Numerous schools must revitalize their existing infrastructure and ensure they are ready for a larger personalized learning roll-out.

Throughout the school year, the evolving preparation for full-school roll outs will continue. Launch schools will begin to scale personalized learning to the rest of the school, with a holistic education in mind. Administration will begin to implement project-based learning and emphasize social skills as a part of the curriculum. All students will develop student agency by setting goals before the school year and consistently reevaluating them over time with the help of teachers and an adult mentor. For instance, Urban Promise Academy involves numerous mentors by expanding the program to include at least three partnerships with outside stakeholders and multiple guest speakers. Schools will also introduce metrics to quantify the success of students in the new program and track their performance. While this may change slightly from school to school, most campuses will have a large scale implementation in year 1
and begin the work on completely revolutionizing their learning program. ASCEND has focused on scaling their current pilots by increasing their staff and developing a parent mentorship program. The launch schools will gather for check-ins over the course of the year to discuss progress, share experiences, and review financials. The schools will also host school visits to demonstrate their personalized learning model in action.

At the end of the first implementation year, the schools will begin planning for year two and beyond. They will refine their curriculum and further the training for staff to try and expand their personalized learning programs across all grades and subjects. The goal is to have personalized learning implemented school-wide by year three, but that will likely vary based on school size and experiences. While these schools are planning for the future, they realize the need to create various metrics to measure their students' journeys.

IV. Metrics

Schools in the Oakland Unified School District are currently using a diverse set of metrics to determine the performance of their personalized learning programs. These metrics focus on student outcomes like student-led learning, badging systems, and social behavioral skills. Accurate measurement of school and student performance are essential to effectively implementing personalized learning, but there are currently no standard metrics for success.

Principals, educators, and designers determine the goals and metrics their school will use to measure success based on research and experiences. Once the goals are established, these metrics will portray a story of the success and needed improvements of the model on a timeline. After years of classroom studies, teacher-made assessments, and school-wide surveys are collected, schools will be able to analyze and determine the further changes needed to strengthen their personalized learning models. When personalizing learning, accurately evaluating student progress poses a new challenge for teachers, as students will be working at different paces on varying curriculums.

The six launch grant schools have a diverse set of missions and goals for personalized learning. These schools emphasize both academics and behavioral skills. For many schools, narrowing achievement gaps was the main end goal, with a specific focus on college and career readiness. Urban Montessori specifically chose to focus on college preparation and will now have the flexibility to gauge success through progress reports catered to college requirements that entail letter ratings and observations. Urban Montessori also emphasizes encouraging a hands-on approach that removes students from the typical academic setting. In the middle school, they will be moving lessons outdoors and tracking this as a key metric. By being outdoors for longer periods of time, they are able to pursue subjects outside the traditional scope of academia. Another example is Urban Promise Academy, who as part of Summit’s Basecamp cohort, imported a model that includes assessments for both teachers and students. Their definition of success is focused more on growth and improvement of current standards rather than setting a required level of achievement for students. The strive to improve their students’ standing, regardless of where they began, and college readiness.
After establishing the vision at the school level, Oakland should work with the schools to define overall student achievement across the district. Once these standards are set, then the schools can confirm their own internal metrics that will help their students reach the district level standards. These different sets of data points would be necessary because although schools have similar objectives associated with lowering the achievement gap, they have individualized ways and metrics to reach these targets. Once aligned on how to measure implementation across the district, schools will have the flexibility and freedom to update their school-level metrics to positively affect the district-level metrics.

For implementation, developing a timeline is important to measure the success of the overall progress towards the adoption of personalized learning. From our responses, most schools have a Y0-Y2 plan in place. Metrics to measure success in Y0-Y1 are indicative of overall progress towards the adoption of personalized learning. Since most schools are piloting their personalized learning programs, there are no standard metrics across the board. In order to determine the metrics to measure the success in Y0-Y1, Oakland needs to set their goals and expectations for this personalized learning transformation. This vision needs to align across the districts, have concrete goals, and a standard of success.

In order to scale efficiently, Oakland aims to align district and school standards before the programs are piloted and continue evaluate and update if necessary on a yearly basis. First year metrics can focus on behavioral data, while second year metrics highlight academics. Examples of behavioral metrics that schools and OUSD scorecards use include suspension rates, attendance rates, and agency. These particular measures reflect the hypothesis that students will be more engaged in learning and growth at their own pace. Success in Y0-Y1 at the school-level can be measured through teacher-made assessments, observations, and surveys across teachers, students, and parents. These metrics provide insight on both the academic and social aspects of school. Teacher assessments will give the educators flexibility in their first year to experiment with different methods of assessing success. Observations are general ratings and notes that teachers can compete with each student’s progress. The surveys provide insight with constant feedback, which will be beneficial in the early stages of the program.
Also within the first year, teachers can use the LEAP\(^8\) personalized learning survey to measure the teaching practices and classroom conditions that enable personalized learning. Using this framework will give educators the ability to focus on the behavior of their students while developing their own assessments and metrics moving towards academics. The learner-connected framework determines whether the teaching model is learner-focused, learner-demonstrated, and learner-led, according to the aforementioned definition of personalized learning.

After the first year, district-level and school-level metrics should be re-evaluated and updated based on the data collected from the past year. The trends in these metrics over the first year will give some indication of success. In the appendix, there are lists of metrics from the OUSD Scorecard, interviews with Oakland teachers, and external research. The metrics display a range of different levels of assessment based on academics, social, and emotional criteria. Interviews indicated a consistent use of Scholastic Reading Inventory (SRI) and Scholastic Math Inventory (SMI) scores across schools. These data points can set the standard of achievement for the district to reach and provides measure to the overall status. SRI is a measure of reading level; a student’s ability to read at the standard level will increase their ability to perform well in the classroom. Likewise, SMI is a measure of a student’s math ability, determining the level of math the student should be learning. These academic metrics will be the district-level standard and a result of decisions at the school-level. They can be measured through these online annual reading comprehension and math assessments. Examples of school-level metrics that will output variable results for the test scores are number of teachers per classroom, hours student spend on instructing their peers, and cumulative grades on tests. Schools will be able to test different school-level variable metrics and directly correlate which metrics affect the district-level SRI and SMI standards. As data is accumulated, periodic updates and trials will be easily executed at the school level. These updates will continue for years as personalized learning programs gain traction in additional schools.

Lastly, a key consideration is data accessibility. Developing a data warehouse that integrates all the district’s data sources ensures that major data pieces are collected and can be integrated into a single cohesive profile that can travel with the student between classes. Once metrics are established, teachers require training on how to process data, many teachers mentioned a high quantity of raw data required to be analyzed.

---

\(^8\) http://leaplearningframework.org/
V. Lessons Learned

**Personalized learning is a flexible model with multiple paths to success.** There is no standardized approach that can be applied across all schools to ensure success. Schools should be allowed autonomy in structuring and implementing a model based on the school’s unique student goals, needs, and culture. Comprehensive program integration requires progressing through different stages: pilots, blueprint design, implementation. Understanding a school’s priorities is particularly important during the prototyping and blueprinting phases. Other similar schools with personalized learning programs in place can be studied as model examples, though one school’s best practices may not apply to all. While models vary, the classroom should always be student-centric with teachers facilitating learning.

**A clearly articulated mission and vision increases buy-in and enables alignment of district and school leader priorities.** Communication with stakeholders to gain buy-in encourages active participation, collaborative planning opportunities, resolution of future conflicts, and focus in devising classroom strategies. District, school leaders, and staff can all be more involved when there are regular discussions and input from upper leadership to manage expectations.

**External incentives and milestones help schools structure their approach and progress through the design and launch stages in a timely manner.** Grant funding, school cohort collaboration, and access to greater support networks through local community initiatives and school cohort collaboration motivate schools to finish blueprinting and launch personalized learning in a timely manner with more stakeholders on board.

**Schools should run classroom-level pilots as they develop their school blueprints rather than diving straight into full-school implementation.** This reduces risk by controlling early-stage costs and provides more opportunities to adapt for school leaders and teachers. Research by the Mastery Design Collaborative found that schools needed significant support while researching and editing blueprints, but that effort often correlated to higher plan quality, as top schools spent about four months brainstorming, researching, collecting feedback, and drafting design blueprints. Pilots were integral to successful full-school planning, as they allowed teachers and administrators to fully grasp the challenges and benefits of PL, as well as determine what practices fit best with their students.

**In order to achieve successful planning and launch of personalized learning, roles must be clearly defined at all levels.** Delegating tasks and responsibilities eliminates duplication of effort and increases productivity, as long as there is clear articulation regarding what is expected from each member. Schools may want to consider creating a personalized learning design lead position to help train, coordinate, and develop teachers. Moreover, leadership and staff should be relatively stable through the entirety of the planning and launch process, as turnover in leadership may lead to a change in priorities or execution strategy.
Implementing an instructional model like personalized learning requires growth mindset leaders and teachers who are comfortable with ambiguity. An accepting school culture where ideas can be tested, scrapped, and reworked allows for greater teacher participation. Since teachers often best understand student needs, school leaders should encourage teachers to take initiative to lead or pilot certain aspects of the program. This includes giving teachers additional planning time and coordinating planning periods among relevant teachers (e.g., same subject, same grade).

In the planning phase, schools should clearly define the indicators that they will track to determine success. Schools should define how to measure each variable and determine what constitutes success along each of these metrics. While student outcomes (e.g., standardized test scores, behavioral referrals) are important, other outcomes including teacher satisfaction, classroom maintenance, and professional development should also be considered. Frequent check-ins are also required to assist teachers and other stakeholders with the transition into new facilitator roles.

Teachers may require additional time and training to conduct progress checks, gather useful student data, and create curriculums informed by that data. Personalized learning is only useful if teachers can keep track of individual student progress and tailor lessons and activities based on student competencies. Therefore, teachers should adopt or develop rubrics and assessments, locate data on various software tools, analyze student progress, and make instructional decisions based on data. To properly enact these practices, schools must ensure that teachers have appropriate time allotted -- for example, schools can ensure that there are stipends to pay teachers to have the time to pause, think, reflect, collaborate, and plan.