

personalized learning(s) from the field™

A report from the
LEAP Innovations
Pilot Network
Cohort 2



contents

Introduction.....	2
Pilot Network Overview.....	4
School Support.....	5
Curation.....	6
Match Day.....	8
Evaluation.....	9
The Results.....	11
Lessons Learned.....	14

introduction

LEAP Innovations launched in 2014 with a big goal – to harness the power of innovative teaching and learning strategies, along with technology, to transform our one-size-fits-all education system into one that is tailored to the individual needs, strengths and interests of each learner.

This approach is known as “personalized learning,” and the work at LEAP centers around identifying the strategies, research and tools that best support it to enable broad and successful scale. As personalized learning gains traction, the need for this work is great. The market for education technologies in the U.S. is expected to reach \$1.83 billion by 2020.¹ Despite increased investment in edtech, school districts face a dearth of reliable data to inform purchasing decisions. According to a recent survey from the Bill & Melinda Gates Foundation, although 93 percent of teachers use digital tools to guide instruction, two-thirds of teachers said they are not fully satisfied with the tools’ effectiveness.²

The LEAP Pilot Network, which pairs innovative school teams with promising edtech products for year-long pilots, was designed to help schools implement personalized learning and edtech thoughtfully and with fidelity. Over the course of a year-and-a-half, the program features intensive guidance for schools on redesigning classroom practice and fostering an agile approach to innovation; an expert-led curation process for selecting edtech tools; professional development; and site-based implementation support. As of 2018, the LEAP Pilot Network has supported more than 90 schools across the Chicago area, making it one of the largest personalized learning networks serving high-needs students in the country.

LEAP’s first year of piloting (2014-2015), which focused on literacy products, showed exciting early promise: Pilot Network students in grades 3-8 gained an average of 1.07 additional test-score points on NWEA over the comparison group. Put another way, a typical student using a reading product in the Pilot Network would gain 6 additional percentile points above a typical comparison student starting with the same score (i.e., 50th percentile to the 56th percentile).

This report outlines the results and learnings from LEAP’s second year of piloting (2015-2016). These results show an even more promising direction in literacy: students in the Pilot Network gained an average of 2.94 additional test-score points over the comparison group. **Put another way, a typical student using a reading product in the Pilot Network would gain 13 additional percentile points above a typical comparison student starting with the same score (i.e., 50th percentile to the 63rd percentile).**



The 2015-2016 school year was LEAP's first year piloting math products. These results were more mixed, showing no significant difference between Pilot Network students and the control group. LEAP is now examining the individual math pilot implementations to see what they can learn to inform future work.

Implementing truly personalized learning – tailoring experiences to individual student needs and strengths, allowing students to demonstrate mastery and progress when ready, and helping them to develop agency in their learning – presents a huge opportunity, both for enhancing teacher practice and helping students become lifelong learners prepared for the 21st century economy. But to realize its full potential, the field must be diligent and evidence-based in its implementation and scale.

The pages that follow more specifically outline LEAP's approach to piloting with schools and edtech companies, as well as LEAP's current evaluation process and next steps. Each year, LEAP learns more about what it takes to implement innovation in schools and classrooms successfully. As a whole, personalized learning is still in early days – together, the field must still determine which personalized learning strategies and tools most impact student outcomes, and how effective strategies and tools can be put into practice. By continuing to study what works and sharing what is learned, small wins can be turned into big victories for all students.

pilot network overview

LEAP launched the Pilot Network to accomplish three fundamental goals: first and foremost, to create access and opportunity for Chicago schools to pilot personalized learning supported by the most promising edtech innovations; second, to help edtech innovators improve their products in service to educators and students; and third, to provide visibility on the impact on students outcomes of these pilot implementations. LEAP also shares what it learns to support the successful scale of personalized learning adoption across the country. In developing this construct, LEAP aims to test their foundational hypothesis: that implementing personalized learning practices supported by quality edtech products can dramatically improve student outcomes.

Both school teams and edtech companies apply to participate in the Pilot Network. LEAP's second cohort of the Pilot Network included 14 school teams from across the city, including five traditional Chicago Public Schools, eight charter schools, and one Archdiocese school. School teams include the school's principal, three to five teachers (on average), the school's IT lead (if applicable) and a Pilot Lead. Pilot Leads – usually an assistant principal, department head, or teacher leader – are designated by the school to lead pilot implementation at the school and serve as the point of contact both for LEAP and the school's edtech company partner.

essential elements of the LEAP pilot network

1 PD **2** Curation **3** Piloting **4** Evaluation **5** Reporting

In the Pilot Network, school teams have the opportunity to innovate at the classroom level, piloting personalized learning practices and an edtech tool across a specific subject area and grade band. The school experience begins in January with a semester of professional development for participating school teams. (See “School Support” on page 4 for more information on the professional development sequence.) Professional development concludes in June, and pilots begin the following fall. Teams choose a focus – for Cohort 2, teams could choose literacy or math. Teams also choose an edtech product that best supports their needs from a selection of promising products carefully curated by LEAP's panel of national experts. (See “Curation” on page 6 for more information on LEAP's edtech selection process.) Teams are then supported by LEAP as they pilot their approach and product over the course of the following academic year, the outcomes of which are evaluated at the student level using NWEA Measures of Academic Progress (MAP) data (see “Evaluation” on page 9 for details).

school support

During the first year of the Pilot Network, LEAP identified the most critical factor in an edtech pilot's success as the teaching and learning practices that shaped it. As such, LEAP significantly increased the supports for school teams in advance of the 2015-2016 pilots, creating a semester-long professional development program to help teams design their personalized learning approaches for pilot classrooms. These sessions, held from January 2015-June 2015, drew on LEAP team expertise as well as that of national experts. It provided teams with 1:1 support to design staffing and scheduling structures, create strategies to increase student-centered learning, and develop teachers' ability to use product data to better tailor learning experiences to student needs. During the spring, teams also conducted "mini-pilots" of multiple products, allowing for more informed choices as to which product to select for the full pilot.

overview of PD sessions

Personalized Learning 101

- Core team & overall design process
- Universal Design for Learning (UDL) and the theory behind personalized learning
- What personalized learning is and is not

Building Your Status & Targets

- Problem definition
- Aligning team vision and the problem to be solved
- SMART target setting (specific, measurable, actionable, realistic, and timely)

Learning Experience Models

- Analyzing school from a learner's experience
- Local personal stories of transitioning to personalized learning

Building Your Prototype

- Strategies to building a complete model
- Breaking down false conceptions of what school must be
- Tradeoffs in design

IT Affinity Group

- Inventory & device refresh strategies
- Device management & support models
- Academic and IT alignment

Individual Team Consults & Product Review

- Selecting product meetings for Match Day

Match Day

- School-company meetings to inform product selection

Implementation Planning

- Project plan, deliverables, dependencies and milestones
- Staff training
- Team collaboration and reflection systems

Mini-Pilot Capstone

- Reflections and learnings

The LEAP team also significantly increased supports for school teams during the pilot year, including three additional professional development sessions and an average of five to six onsite visits per school. During these visits, LEAP coaches observed pilot implementations and provided feedback, worked with teams to navigate challenges, and supported teachers in adopting next-level personalized learning strategies, including encouraging more student ownership, increasing flexibility within classroom structures, and coaching students to make learning choices based on their needs, interests and strengths.

In addition to professional development provided by LEAP coaches, participating edtech companies provided schools with product-specific training prior to pilot launch, as well as monthly check-ins, often with a dedicated support person.

curation

In fall of 2014, LEAP began recruitment for its second year of pilots, calling again for literacy edtech products and – for the first time – math edtech products to support personalized learning. LEAP received 52 total product applications from edtech companies around the world.

LEAP first reviewed applications internally, selecting for edtech tools that enabled personalized learning for students – serving students at a range of levels with high-quality learning experiences with features that encourage student ownership of learning, awareness of progress, and student goal-setting. They also selected for tools that demonstrated a record of prior success. An external curation panel of learning scientists, educators and other subject-matter experts was assembled to further evaluate the applicants and decide which would be made available to schools for selection. Their criteria included prior student impact results and research; company strength and stability; alignment to learning science and Common Core standards; augmentation of teacher capacity; and functionality around student feedback and motivation.



key 2015-2016 curation focus areas

Company Strength and Stability

- The product is a leader in the current marketplace and/or has the potential to transform the marketplace.
- For emerging companies, the company appears healthy and poised for future success.
- The company is led by a strong team.
- The company and product team have the experience and bandwidth necessary to effectively support multiple schools in the LEAP Pilot Network.
- The company's pricing model is realistic for wide-scale adoption.

Evidence/Potential of Impact

- The product is well-aligned to Common Core and the Danielson Framework.
- The product has the potential to impact student learning outcomes.
- The product design matches its intended use.
- The product can be easily implemented in a way that enhances teacher efficiency.
- The product offers a high-quality experience for the learner.
- The product offers a high-quality experience for the educator.
- The product's approach to incorporating learning science or expert pedagogical design is deliberate, clearly outlined and well-aligned to best practice.
- The evidence of effectiveness is credible and substantial.
- The product is universally accessible.

2015-2016 curation panelists

Math

- Debbie Leslie, Senior Curriculum Developer, ECE Specialist, CEMSE, University of Chicago
- Michael Lach, Director, STEM Policy and Strategic Initiatives, University of Chicago
- Jie-Qi Chen, Principal Investigator, Early Math Collaborative, Erikson Institute

Literacy

- Susanna Lang, Literacy Coach, Hawthorne Scholastic Academy
- Molly Thayer, Program Director National P-3 Center

Research & Evaluation

- Susmita Pratihast, Research Consultant, LEAP Innovations
- Amy Nowell, Director of Research, LEAP Innovations

*titles reflect positions
as of Winter 2015*

Learning Science

- Kemi Jona, Learning Scientist, Northwestern University
- Bror Saxberg, Chief Learning Officer, Kaplan

Management

- Shauntel Poulson, Principal, New Schools Venture Fund
- Amit Patel, Principal, Owl Venture Fund
- Seth Rohit, Partner, Duchossois Capital Management

Education Technology Integration

- Anirban Bhattacharya, Digital Learning Director, KIPP Foundation
- Chris Liang Vergara, Chief of Learning Innovation, LEAP Innovations



match day

The curation panelists chose 16 edtech products from the pool of applicants to move forward and attend LEAP's product selection event, Match Day. Also invited to Match Day were companies that had already passed the curation process for LEAP's 2014-2015 pilots.

At Match Day, school teams met with the subset of these curated companies best suited to their needs. Both schools and companies were prepped by LEAP for these meetings in advance. For companies, this meant ensuring the meetings were not generic sales pitches but rather in-depth demos tailored to school needs and targeted for educator concerns. Schools were encouraged to stay aligned to the problem they were trying to solve and ask specific questions around product content, features and implementation strategies that would best support their planned personalized learning practices.

Following Match Day, companies not selected for pilots received anonymized feedback from school teams on the quality of meetings and company preparation, schools' level of interest in the product, and comments on specific product features, the availability and quality of data, and the rigor of content. Ultimately, 16 new and returning companies attended Match Day, and eight were selected by schools for pilots – two reading products and six math products.

insights from myON

Edtech Partner Insights: Match Day
From cohort to cohort, LEAP seeks feedback from its school and edtech company partners to improve the pilot experience. Based on learnings from the second cohort, LEAP extended Match Day meeting times from 45 minutes to one hour, and provided additional background information to edtech companies on school needs and the practices and products that school teams were currently using. According to LEAP's partners at myON, this allowed edtech company partners to better personalize their approach to the needs and interests of each school, as well as dig more deeply into relevant product features and implementation recommendations.

"Based on our previous Match Day experiences, we brought an extended team so that we could have focused discussions on both product and practice/pedagogy with the school teams. This, combined with the background provided on schools, allowed us to have much more thoughtful conversations, and ultimately produced better results."

Kim Walsh

Account Manager, myON

evaluation

The findings from the LEAP Pilot Network are meaningful for the field, both in showing the promise of personalized learning generally and specifically identifying effective tools and practices. The program is developing strong evidence of that impact. However, the Pilot Network was designed first and foremost to support school teams on their paths to personalized learning and effective edtech implementation. LEAP's professional development model is hands-on and personalized. Even more importantly, LEAP allows schools to pick the edtech tool that best meets their needs from a growing list of curated products, so there is variation among the sample sizes using each product. For the 2015-2016 pilot year, the number of schools piloting a given product ranged from one to five, and the number of classrooms piloting a specific product in each school ranged from two to four.

The LEAP research team has developed a robust evaluation structure for the Pilot Network, supported with oversight from the LEAP Research Advisory Board, comprised of national experts in education research. Through their evaluation, LEAP aims to better understand what strong implementation of personalized learning supported by edtech looks like, which products are having a statistically significant impact on student performance, and whether the Pilot Network program is having a significant impact on learning.

research advisory panel

The LEAP Research Advisory Panel helps to shape the LEAP research agenda and provides expertise and general oversight on the analysis of our results.

Our 2016-2017 Research Advisory Panel Members*

Edith Gummer

LEAP Sr. Research Fellow; formerly Kauffman Foundation, NSF, and WestEd

Margaret Raymond

Director, CREDO at Stanford University

John Pane

Distinguished Chair in Education Innovation and Senior Scientist at RAND Education

Terri Pigott

Professor of Research Methodology, School of Education, Loyola University Chicago

Brad Bernatek

Senior Program Officer, Bill & Melinda Gates Foundation

Nichole Pinkard

Associate Professor, College of Computing and Digital Media, DePaul University; Founder of Digital Youth Network

*Covering the timeframe in which the analysis for this report was conducted

To do this, LEAP needed a reliable measure of growth in student learning as well as a comparison group of similar students not engaged in the Pilot Network. LEAP used NWEA Measures of Academic Progress (MAP) in grades 3 – 8 as the measure for literacy/reading comprehension and mathematics for students. MAP assessments are used for accountability by Chicago Public Schools and almost all students are required to participate. For this reason, LEAP was able to use data from district-managed and charter Chicago Public Schools to create a comparison group. Both of these assessments are usually administered three times a year. The analysis looked at spring to spring growth in student scores from spring 2015, the spring



before the pilots started, to those from spring 2016, the spring the pilots ended.

LEAP researchers used a method known as *propensity score matching* at the student level to create a comparison group as similar as possible to the Pilot Network students. LEAP then used a series of multilevel models to estimate the impact of participation in the Pilot Network program and the use of particular edtech tools.³ These models controlled for student characteristics such as grade, gender, race, free/reduced price lunch status (an approximate measure of poverty), special education status, English language learner status, and prior test score.

Propensity score matching was used because randomized assignment of schools, teachers, and students was not possible. This methodology is one of the most effective quasi-experimental approaches available. While randomization is the scientific ideal, the Pilot Network program is operating within the real-world context of schooling, and it is designed to give teachers and schools leaders the power to innovate in a way that serves all students in the pilot classroom and is best for their unique students and communities.

However, as the Pilot Network continues to grow, LEAP will aggregate product data across school years seeking to identify statistically significant results for more products over time. Additionally, through expanded use of their observation tool and the LEAP Personalized Learning Surveys, they will be better able to codify personalized learning practices and begin to understand which practices have the most impact on student outcomes.

the results

Pilot Network Results – Literacy

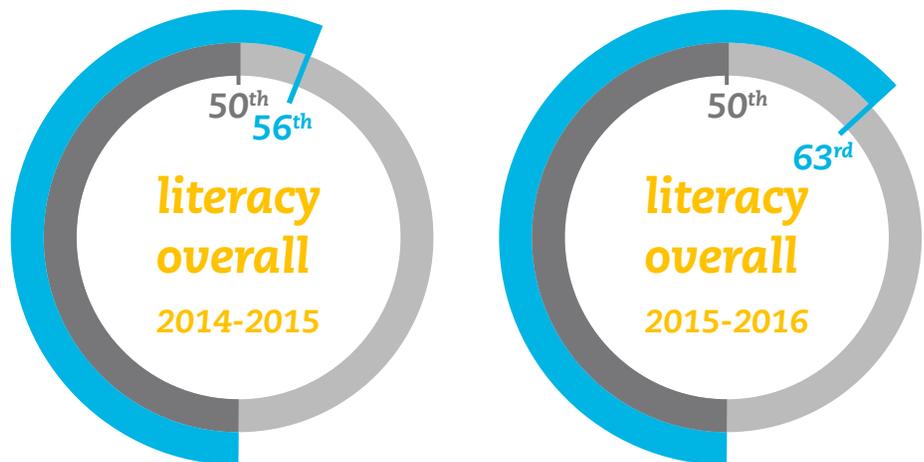
This analysis includes five schools and a total of 488 students. Six schools participated in literacy pilots, but one school did not participate in NWEA testing, and therefore data was not available for analysis. Implementation varied slightly over time, with 85 percent of classrooms meeting usage targets defined by schools for at least 16 weeks of the pilot, and 65 percent of classrooms meeting usage targets defined by schools for at least 24 weeks of the pilot.

Results showed promising, statistically significant impact.⁴ **Students in the Pilot Network using a reading product gained an average of 2.94 test-score points over the comparison group.**⁵ Put another way, a typical student using a reading product in the Pilot Network would gain 13 additional percentile points above a typical comparison student starting with the same score (i.e., 50th percentile to the 63rd percentile).

LEAP ran these same models for African American students as well as low-income students. The model results for African American students (+2.89 points) and low-income students (+2.41 points) were statistically significant and in line with our original models run on the whole treatment group, indicating that gains made by Pilot Network students were not limited to White or affluent students.

pilot network percentile gains - literacy overall

- comparison student percentile
- LEAP Pilot Network student percentile



This finding builds on the results from LEAP’s first year of piloting, in which students gained an additional 1.07 test-score points beyond what the comparison group gained. Put another way, a typical student using a reading product in the Pilot Network would have gained six additional percentile points above a typical comparison student starting with the same score (i.e., 50th percentile to the 56th percentile).

The above illustrates promising growth in percentile gains from LEAP’s first year of piloting to the second. As noted throughout the

report, LEAP made significant changes from year one to year two in terms of professional development for school teams and a focus on implementing and supporting personalized teaching and learning strategies. LEAP will look more closely at these features moving forward to understand the extent to which they are contributing to success in the Pilot Network program.

Product-Specific Results – Literacy

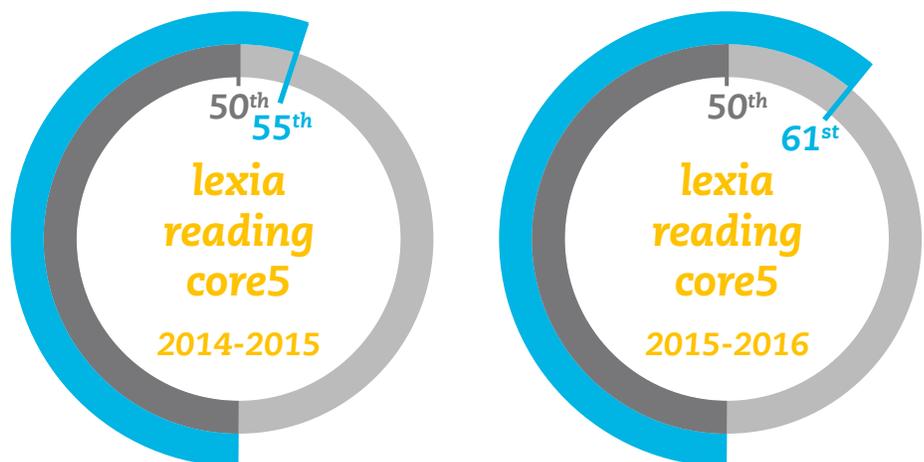
The schools whose pilots focused on literacy piloted one of two different reading products. This analysis includes four schools that piloted Lexia Reading Core5, and one school that piloted myON.

Lexia Reading Core5 showed statistically significant, positive impact.⁶ Lexia Reading Core5 is an adaptive literacy tool that provides students with personalized learning paths through six key areas, including comprehension, phonics, and vocabulary. Lexia was piloted in 18 classrooms in four schools in grades K-5. In grades 3-5 (data used in the analysis), Lexia was piloted by 443 students. Again, implementation varied slightly over time, with 89 percent of classrooms meeting usage targets defined by schools for at least 16 weeks of the pilot, and 72 percent of classrooms meeting usage targets defined by schools for at least 24 weeks of the pilot.

The use of Lexia resulted in a 2.57 point increase in NWEA reading scores.⁷ Put another way, a typical student using Lexia in the Pilot Network would gain 11 additional percentile points above a typical comparison student starting with the same score (i.e., 50th percentile to the 61st percentile).

pilot network percentile gains - lexia reading core 5

- comparison student percentile
- LEAP Pilot Network student percentile



Again, this finding builds on the results from LEAP's first year of piloting, in which students using Lexia gained an additional 1.42 test-score points beyond what the control group gained. Put another way, a typical student using Lexia in the Pilot Network would have gained five additional percentile points above a typical comparison student starting with the same score (i.e., 50th percentile to the 55th percentile).

Lessons learned

from Lexia

Edtech Partner Insights: Implementing Edtech

LEAP works closely with its edtech company partners to support schools in implementing edtech products with fidelity. This includes companies providing product-specific training prior to pilot launch, as well as monthly check-ins.

In the case of Lexia Reading Core5, their first two years in the LEAP program coincided with a national push to provide schools with a dedicated team of implementation specialists. These specialists provide goal setting and kick-off planning with school and district leaders, onsite staff training and data coaching for teachers, and a year-end review of key metrics on implementation, student's gains, and the use of embedded instructional resources. This support, coupled

with LEAP's pre-pilot professional development and continued in-school support, helped schools implement the product thoughtfully, and use it to support personalized learning for students.

"One unique aspect of the Lexia Reading Core5 implementation that we observed in LEAP schools was classroom teachers sharing Lexia data reports directly with students. In some cases, teachers would review progress with students skill by skill, giving students a more detailed understanding of their progress, strengths and weaknesses, as well as more ownership of their learning overall. We've begun to share this practice with other Lexia users across the country."

Bob McCabe, VP Education and Outreach, Lexia Learning

myON is a personalized literacy environment and digital library. The system generates individualized recommendations to engage learners at their appropriate reading level, allows learners to pick from books that meet their individual interests, and allows teachers to curate reading lists that meet instructional goals. Findings from this year's pilots showed promising but not statistically significant impact. However, myON was only piloted in one school. Next year, LEAP will publish results from the third cohort of the Pilot Network, which includes five additional schools piloting myON.

Pilot Network Results – Math

While the 2015-2016 school year was LEAP's second year piloting literacy products, it was their first year piloting math. Eight schools piloted math products. These results were more mixed, showing no significant difference between Pilot Network students and the comparison group. Results varied widely across classrooms and schools. As a next step in better understanding these results and informing future pilots, LEAP is now looking more closely into the individual classroom implementations and how these varied within and across schools, using data around classroom utilization of the products and surveys of student experiences of personalized learning and teacher practices.

To further inform future pilots and supports for school teams, LEAP is also investigating best practices from high-growth math schools across the city, as well as implementation insights from their leading edtech company partners. As noted above, LEAP plans to aggregate multiple years of Pilot Network data seeking to identify statistically significant results for more products over time. While the 2015-16 year math results did not produce any significant results on their own, these data will serve as a foundation for future multi-year reports.

lessons learned

The Pilot Network was designed to help schools implement personalized learning supported by edtech thoughtfully and with fidelity, to provide insights to edtech companies on how their products could better serve teachers and students, and to begin to identify what strategies and tools best improve student outcomes.

Overall, this work has shown time and again that the most critical element of a personalized learning environment is not the technology being piloted, but the educators driving the experience. It's about identifying the problem that needs to be solved, and using learner-centered strategies to address it – better meeting students where they are in terms of skill and need, increasing student agency and ownership, or connecting the learning happening in the classroom to the community and cultures outside of it. Technology, however, is an important tool in supporting these strategies.

No two students learn in exactly the same way, and teachers have long sought strategies to individualize instruction. In the Pilot Network, LEAP aims to empower educators with these strategies, along with the tools and technology to support them.

From their first year of piloting to their second, LEAP used resulting data, feedback and observations to better tailor the program to meet participants needs. The lessons learned from their second year of piloting, outlined below, were again used toward this end, resulting in a refined professional development sequence, increased supports for school teams, and perhaps most importantly, the LEAP Learning Framework for Personalized Learning – a comprehensive definition of personalized learning packaged with tangible classroom strategies, which is now being used by educators across the country.

LEAP's four key takeaways

- 1** A shared framework provides a critical foundation
- 2** Strategies can start small, but lead to bigger changes
- 3** With the right supports, innovation can have promising impact early on
- 4** Piloting innovation is a pathway to whole-school improvement

A shared framework provides a critical foundation

During the course of LEAP’s professional development with Cohort 2, it became clear that school teams needed a clearer, shared vision of what personalized learning is, and more concrete strategies for implementing it, to serve as a foundation for these plans. To this end, LEAP partnered with local educators and national experts to develop the LEAP Learning Framework for Personalized Learning. First released in the spring of 2016, the LEAP Learning Framework now serves as the foundation for all of LEAP’s work with educators. It includes 90 strategies across our four core components of personalized learning:

Learner Connected

Learning transcends location in relevant and valued ways, connected to families, educators, communities and networks

Learner Focused

Empower learners to understand their needs, strengths, interests and approaches to learning

Learner Demonstrated

Enable learners to progress at their own pace based on demonstrated competencies

Learner Led

Entrust learners to take ownership of their learning

“Because of their unique, collaborative research process, Lexia has participated in the LEAP Innovations Pilot Network program since its inception in 2014. In partnership with the LEAP team, we’ve established strong implementations in 30 schools. This effort has allowed us to replicate results across buildings year-over-year and validate the design of our reading program for enabling personalized learning.”

Bob McCabe, VP Education and Outreach
Lexia Learning

This framework now provides a coherent personalized learning construct on which team base their pilots. The strategies included within it provide a tangible starting place for teachers to ideate learner-centered practices, giving them a guidepost and a voice in what’s best for their students’ unique context.

Strategies can start small, but lead to bigger changes

Already, personalized learning is taking shape in LEAP Pilot Network schools. In their work with Cohort 2, LEAP observed and supported different tiers of early personalized learning implementation.

Across the board, most teachers took the first few weeks of school to build new routines and culture – for themselves and for students – before introducing the edtech tools, taking time to shift mindsets and practices from traditional models of education to more personalized approaches.

In terms of specific practices, many teachers increased student choice by using menus of learning options across class periods, days, or even weeks. In many instances, students would reflect on their learning activities and monitor their own progress toward their goals, discuss their progress in one-on-one conferences with teachers, and then co-design next steps in their learning paths with teachers based on their interests, strengths and needs.



Other teachers employed entrance tickets, through which students would demonstrate their current understanding of a topic or concept. Based on the results, students would choose their learning experience for the day. Those experiences included small-group instruction with a teacher, independent work on edtech tools, hands-on activities, and collaborating with peers to problem solve or extend their learning.

Edtech was primarily used intentionally to better meet the needs of individual students, with the most advanced implementations utilizing individualized targets and usage goals for each. Many teachers implemented tracking systems so that students could monitor and take ownership of their own progress.

The LEAP team also observed and supported increased use of real-time data from edtech tools to inform instruction. Many Pilot Network teachers regularly used edtech data to identify areas of challenge for individual students, as well as to identify students who were ready for more difficult material. Some teachers regularly used the data to develop flexible groupings for small-group instruction that changed dynamically in response to student needs, strengths and interests.

Teachers also adopted strategies to help students take ownership of their own data. Some hosted regular conferences with students, where they reviewed this edtech data along with other relevant classroom data and social-emotional factors. Some teachers also empowered students to track and monitor their own progress in order to build intrinsic ownership and accountability.

With the right supports, innovation can have promising impact early on

During LEAP'S first year of piloting with school teams, they recognized the need for increased supports and developed a semester-long professional development program that their Cohort 2 teams experienced prior to their pilots. This program included eight sessions, during which teams aligned on the problem to be solved, a vision for their future state, and the core aspects of what personalized learning is (and isn't). Teams then moved from prototyping their personalized learning strategies to developing a full implementation plan. Along the way, teams learned from fellow Chicago educators already personalizing learning in their classrooms and from national experts. A special session was held for the IT personnel from each school to discuss IT alignment with pilot goals, as well as share best practices among schools on device management and other IT support areas. Finally, teams also received dedicated professional development on their selected edtech tools directly from the respective companies prior to beginning their pilots, as well as regular check-ins during the pilot year.

insights from myON

Edtech Partner Insights: Setting a Shared Vision

Through the professional development series that precedes pilot launch, school leadership and participating teachers develop a shared vision, which anchors the pilot throughout implementation. Edtech company partners have cited this shared vision, along with regular touchpoints from both the company support staff and from LEAP, as being critical factors in a smooth and consistent edtech implementation.

"Implementing a new product is often a windy road, and ongoing professional development is key to making it a success. In the LEAP Pilot Network, school teams start with a common goal, and there is a shared, continued focus on making the pilot a priority throughout the year."

Kim Walsh
Account Manager, myON

It's important to note that these results are from the school year that the pilots take place – the first year that teachers are implementing radically different practices in their classrooms. First-year results from this kind of change can show decreases in achievement. This makes these significantly positive results for classrooms piloting literacy even more exciting. It also shines a light on a key component of LEAP's program – the significant professional development and other supports that school teams receive as they design and implement personalized teaching and learning strategies and adaptive edtech products.

For this round of pilots, LEAP had access to additional product and assessment data for classrooms in Pilot Network schools but outside of the Pilot Network program. These classrooms were using the same pilot products and were in the same schools as the LEAP teams; however they were not receiving LEAP support and were not included in the main line of efficacy research mentioned above. This additional data allowed LEAP to take a preliminary look at the differences in product use and student outcomes between LEAP-supported and non-LEAP supported classrooms in Pilot Network schools. While LEAP must emphasize that the analyses done on these data were preliminary, the results suggest that students in classrooms using products with

LEAP support used products more consistently and saw greater progress towards end-of-year product goals. However, this data was only accessible for a small number of products at a small number of schools, and little is known about the teaching practices and students experiences in the non-LEAP classrooms. LEAP intends to expand this line of research to better understand whether LEAP support may be helping to improve product use and increase product fidelity and how those factors may or may not be contributing to student outcomes.

Piloting innovation is a pathway to whole-school improvement

While the Pilot Network is designed to support school teams as they implement personalized learning across specific subject areas and grade bands, it also seeds practices that support long-term change and scaling within schools. This is accomplished through deliberate instruction around the change management process and the delivery of explicit strategies to support long-term implementation and scale. The Pilot Network focuses on engaging participants in applying their learning as quickly as possible and building cycles for schools to learn from and iterate upon their implementation.

“We’re seeing our vision come to life. We’re able to get [our students] to do so much more now, because they truly love learning. Now, they have an understanding of their own goals - the ‘why’ comes from the student now.”

LeViis Haney, Principal
Lovett Elementary School
Chicago Public Schools

“We started off small. But now, it has ignited a flame in our school. Teachers across grade levels, across content areas, across the building are asking “What are you doing in your classroom?”...As a result of that, we’re going to scale it up. We’re going to begin to allow other students at other grade levels to experience the amazing things that happen in the classrooms where teachers are involved and engaged in personalized learning – where students are at the forefront of their learning.”

Cynthia Treadwell, Assistant Principal*
Wendell Smith Elementary School
Chicago Public Schools

**title reflects position in school year 2015-2016*

Because of the value of this approach and support, LEAP has seen several schools reengage in the Pilot Network across multiple years, with new teams and focus areas, in order to scale their personalization work more broadly across the school. From LEAP’s first cohort (2014-2015) to second cohort (2015-2016), seven schools continued Pilot Network programming with a new team. And from their second cohort to their third cohort (2016-2017), four schools continued Pilot Network programming with a new team.

Additionally, eight schools from LEAP’s first and second cohort of the Pilot Network went on to compete in LEAP’s whole-school transformation grant program, Breakthrough Schools Chicago. Five of these schools were selected to receive implementation grants.

“Since we first partnered three years ago, LEAP has impacted more than 2,000 of our students. Without the support of LEAP, our school would not be what it is today. When you enter Patrick Henry Elementary School, you see educators fully immersing themselves into the new curriculum that is learner led and students excited about being part of their learning experience.”

Juan Gutierrez, Principal
Patrick Henry Elementary School, Chicago Public Schools

Next Steps

Given the promise of both the Pilot Network and Breakthrough Schools programs, LEAP has been given the opportunity to formally partner with Chicago Public Schools on a new program, LEAP Elevate. Utilizing many of the structures, programming elements, and best practices from the Pilot Network and Breakthrough Schools, LEAP Elevate will take participating schools from an introduction to personalized learning to a plan for whole-school transformation in two-and-a-half years. LEAP works closely with Chicago Public Schools to identify schools for the program, prioritizing those looking to improve school student outcomes.

Additionally, LEAP has partnered with the Archdiocese of Chicago on another new program, LEAP Propel. Again drawing on the structures and programmatic elements of the Pilot Network, LEAP Propel will provide schools with an additional year of support following the pilot year to optimize continued implementation – ensuring that innovation sticks.

The insights in the “Lessons Learned” section above are descriptive – strategies LEAP observed to varying degrees across Cohort 2 classrooms. The next step is to more systematically codify and understand the factors that contribute to successful implementation, and which personalized learning strategies most positively impact student outcomes.

To lay the foundation for this work, LEAP created the LEAP Personalized Learning Surveys, now taken by Pilot Network teams along with hundreds of schools across the country. The surveys measure the degree of personalization in a given classroom from the student and teacher perspectives. In the coming years, this data, coupled with observation data from future Pilot Network cohorts and outcomes data from Pilot Network students, will help LEAP and the field start to understand what practices will truly move the needle for student achievement.



Specifically, with data to come from the third cohort of the Pilot Network (2016-2017), LEAP will conduct multi-year analyses across cohorts (2014-2017) seeking to identify statistically significant results for more products over time. With LEAP's fourth cohort of the Pilot Network, which began piloting in the fall of 2017, they will also take a deeper dive into implementation with multiple intensive case studies, utilizing observation and interview data, edtech usage data, and student outcome data. On a parallel track, LEAP is partnering with the Wisconsin Center for Education Research at the University of Wisconsin-Madison to codify seven of the whole-school personalized learning models they supported through their Breakthrough Schools program, and highlight areas of effectiveness, areas of continued improvement, and student outcomes.

The idea that every child could have a learning experience personalized to their unique needs, strengths and interests brings with it much excitement and promise, but also many questions. Before these questions can be answered, the field must do its homework. LEAP's research agenda, coupled with work from partners across the country, will help take the nascent field of personalized learning from hypothetically transformative to being rooted in evidence, with a better, shared understanding of which strategies and tools will work best for which students and in which contexts.

references

¹ EdWeek Market Brief, “K-12 Ed-Tech Platform and Tools Market Value to Increase to \$1.83 Billion by 2020, Report Says,” 2017; available online at <https://marketbrief.edweek.org/marketplace-k-12/k-12-ed-tech-platform-tools-market-value-increase-1-83-billion-2020-report-says/>; last accessed February 2018

² The Bill & Melinda Gates Foundation, “Teachers Know Best: Making Data Work for Teachers and Students,” 2015; available online at <http://k12education.gatesfoundation.org/download/?Num=2335&filename=TeachersKnowBest-MakingDataWork.compressed.pdf>; last accessed February 2018

³ The multi-level models used by LEAP:

Level I: $(\text{Post_Test})_{ij} = \beta_0 + \beta_1(\text{Prior_Test})_{ij} + \beta_2(\text{Prior_Test}^2)_{ij} + \beta_3(\text{Gender})_{ij} + \beta_4(\text{Race: Asian})_{ij} + \beta_5(\text{Race: Black})_{ij} + \beta_6(\text{Race: Hispanic})_{ij} + \beta_7(\text{Special_Educ})_{ij} + \beta_8(\text{ESL})_{ij} + \beta_9(\text{F/R Lunch})_{ij} + \beta_{10}(\text{Grade})_{ij} + \beta_{11}(\text{Product/Model})_{ij} + e_{ij}$

*for student i and school j

Level II: $\beta_0 = \gamma_0 + \mu_0j$

⁴ Statistical significance was not adjusted for multiple hypothesis tests

⁵ The standardized effect size for this point estimate is 0.328

⁶ Statistical significance was not adjusted for multiple hypothesis tests

⁷ The standardized effect size for this point estimate is 0.282