digital learning lab

Field Report

Acknowledgments

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Stephen Alderson
Dean of Adult and Continuing Studies
Instituto Del Progresso Latino

Heather Erwin, JD
Senior Program Associate
Vera Institute of Justice

Dena Giacometti
Program Director
Chicago Citywide Literacy Coalition

Jeff Goumas
Founding Director and President
CrowdED Learning

Elizabeth Romero, PH.D.
Director of Learning Technology Solutions
University of Illinois

David Rosen, ED.D.
President
Newsome Associates and LINCS Moderator

Finally, we are indebted to all the instructors participating in the lab, as well as their students. Their teaching and learning experiences are critical to helping improve the effectiveness and reach of adult education.

To learn more about the Illinois Digital Learning Lab, please visit http://bit.ly/il-diglab. You can also follow us on Twitter @il_diglab.

digital learning lab

Table of Contents

"Our students are genuinely working hard to improve the quality of their lives and their families' lives. They are invested and focusing as much as they can on their education, but because of their many responsibilities, we need to help them to maximize their learning in the small windows that they have. Technology tools can help us do that."

MEGAN JONES

ADULT EDUCATION INSTRUCTOR

WAUBONSEE COMMUNITY COLLEGE, SUGAR GROVE, ILL.

Introduction

WHEN WE TALK ABOUT EDUCATION IN THIS COUNTRY, IT'S often in relation to children, from early childhood through high school, or higher education in the context of traditional four-year colleges and universities. Frequently left out of the conversation is the world of adult basic education—instruction and services that community colleges, public schools, community-based organizations, libraries, workforce centers, and agencies provide to help adult learners meet their goals.

For many, adult education is the most accessible, affordable avenue for mobility; in today's economy, continual learning and critical thinking skills are crucial for success. However, it can be challenging to attend classes in addition to other demands, such as working full-time and taking care of a family. Whether used inside or outside the classroom, integrating technology into adult education courses can:

- Support teaching effectiveness
- Increase student engagement
- Accelerate learning during the precious time that adult learners have available
- Help close the "technology gap" so that adult learners can gain 21st century skills
- Reach students if services are far from home

Who Are These Adult Learners?

ADULT LEARNERS IN BASIC EDUCATION PROGRAMS SHARE A desire to improve their basic academic skills, and in some cases their English proficiency. The reasons can vary greatly. A mother may want to learn enough English to communicate with her child's teachers. A factory worker may seek to hone his math skills, so he can move into a supervisory position. An older teen who dropped out of high school may want to finish her diploma. A professional from another country may need help transitioning to a new career in the u.s.

As a result of this diversity, adult education practitioners face a range of challenges in their work. The scope of ages, educational and cultural backgrounds, skills, and goals can vary greatly within a single classroom, making individualized learning difficult. Also, adult learners often have many other responsibilities that take time and energy, preventing them from staying engaged with a course.

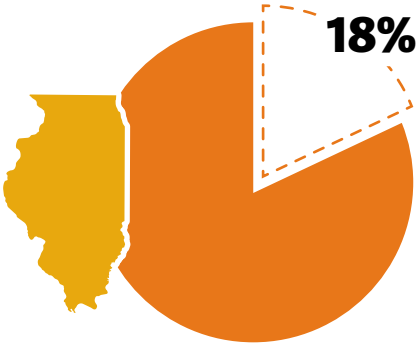
Our Vision

AGAINST THIS BACKDROP, THE ILLINOIS DIGITAL LEARNING Lab seeks to build a community of adult educators teaching across Adult Basic Education, Adult Secondary Education, and High School Equivalency programs in the state of Illinois. The goal is to experiment with digital tools and technology to serve student needs.

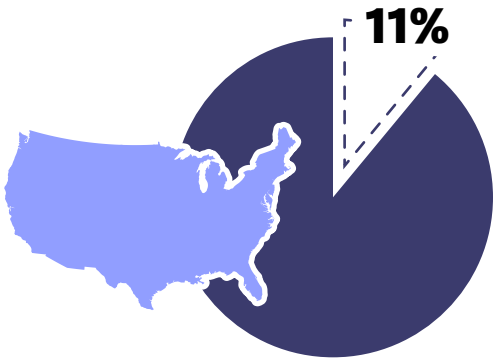
The Lab provides participating educators the opportunity to act as entrepreneurs. By researching digital tools, experimenting, and then testing a range of technology solutions in the classroom, educators can brainstorm solutions that meet the needs of learners.

This report outlines findings from the first year of the program, as well as potential next steps to build on what has been learned.

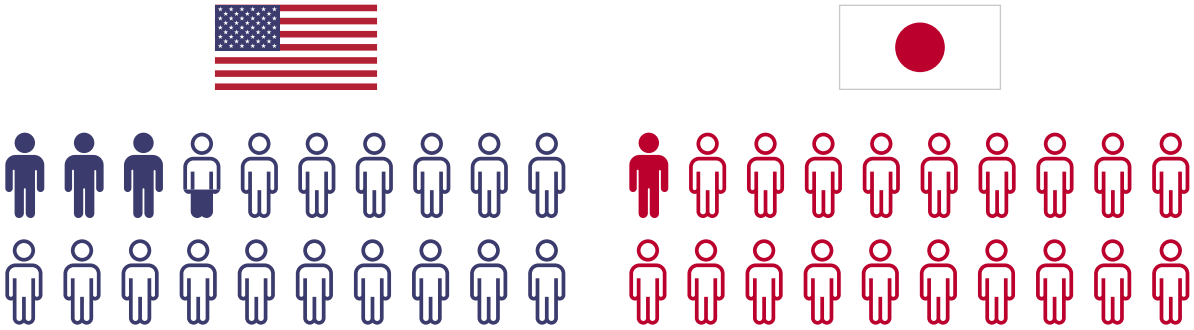
The Need



Currently, an estimated **2.2 million Illinois adults**, or 18% of the state's population, have limited skills in reading, writing, math or English proficiency.[1]



More than **36 million adults** in the United States do not have the basic literacy and math skills needed for many entry-level jobs.[2]



Low "basic" skills (literacy and numeracy) are more common in the United States than other countries. **One in six adults have low literacy skills**—in Japan the comparable figure is one in 20. Nearly one in three have weak numeracy skills compared with the worldwide average of one in five.[3]

1 Office of the Illinois Secretary of State. (2017). Literacy: Illinois State Library. Retrieved from http://www.cyberdriveillinois.com/departments/library/literacy/home.html

2 Murphy, R., Bienkowski, M., Bhanot, R., Wang, S., Wetzel, T., House, A., Leones, T., Van Brunt, J. (2017). Evaluating Digital Learning for Adult Basic Literacy and Numeracy. Menlo Park, CA: SRI International.

3 OECD (2013), "Summary of findings and policy recommendations", in *Time for the U.S. to Reskill?: What the Survey of Adult Skills Says*, OECD Publishing, Paris, Retrieved from https://doi.org/10.1787/9789264204904-2-en.

"Economic and demographic changes are dramatically increasing the need for adult education, literacy, and English as a Second Language programs."

ILLINOIS COMMUNITY COLLEGE BOARD

SPRINGFIELD, ILL.

Adult Education 101

For the purpose of reporting data to the state, adult programs designate courses as one of the following[4]:

ESL

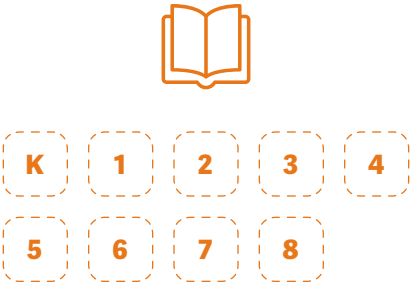
English as a Second Language

Immigrants come to the United States seeking education, work, and a higher quality of life. ESL classes, also known as ESOL (English for Speakers of Other Languages) or ELA (English Language Acquisition), are for those whose first language is not English. In such classes, students can range greatly in level of fluency and general education from their home country.

ABE

Adult Basic Education

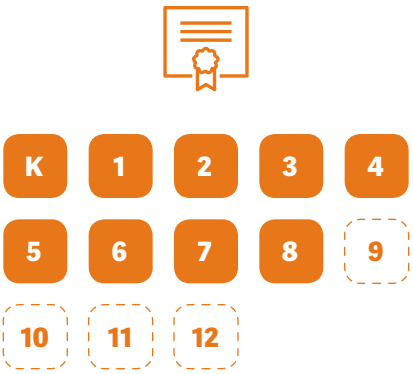
Courses provide basic reading, writing and math instruction to adults who read below a 9th grade equivalency level, as indicated by TABE test scores. ABE courses are sometimes referred to as "Pre-GED" classes.



ASE

Adult Secondary Education

These courses typically prepare students for the GED® or a similar test, such as the HSE (High School Equivalency), with the expectation that they will transition into higher education or into career training.



4 Adult Learning Resource Center for the Illinois Community College Board, Adult Education Service Center Network.

Map of Participants

The Lab is composed of educators from rural, suburban, and urban parts of the state. The educational settings vary across participants, from community colleges and school districts to small tutoring programs, through libraries, off-site classes, and some prison facilities.

Arlington Heights

Julie Frost
Township High School District 214
Adult ED

Aurora

Megan Jones
Waubonsee Community College

Champaign

Susan Jones
Parkland College

Chicago

Weiwei An
Puitak Center

Mauricio Blanco
Onward Neighborhood House

Bria Dolnick
Chinese Mutual Aid Association

Michael Matos
Albany Park Community Center

Satoy Nakanishi
Wilbur Wright College

Carole Walls
The Learning Center

Kamil Walton
Ford Heights Community Service Organization

Nilay Zan-Donmez
Albany Park Community Center

Danville

Debra Wilson
Danville Area Community College

DuPage County

Cathy Kramer
College of DuPage and Waubonsee Community College

Elgin

Dawn Brill
YWCA Elgin

Joy Pak
YWCA Elgin

Svitlana Podkopayeva
Elgin Community College

Karen Voo
Elgin Community College

Joliet

Mandy Dwyer
Joliet Junior College Department of Adult Ed. and Literacy

Ramien Manson
Joliet Junior College

Malta

Mary Ann Kolls
Kishwaukee College

Mattoon

Sara Layton
Lake Land College

McHenry County

Mary Kanter
McHenry County College

Normal

Heather Huckstadt
Heartland Community College
Adult Education

Eduardo Pimentel
YouthBuild McLean County
Charter School

Olney

Kara Roberts
Olney Central College; IECC GED

The HTC Vive is a virtual reality headset developed by HTC and Valve Corporation. The headset uses "room scale" tracking technology, allowing the user to move in 3D space and use motion-tracked handheld controllers to interact with the environment.

Project Vision & Process

AFTER A CALL FOR APPLICATIONS IN SEP-tember 2017, the Lab selected 25 educators from across the state of Illinois to participate. The program officially kicked off in October 2017 with an interactive workshop in Bloomington, Illinois. At that time, participants discussed challenges faced in the classroom and collaborated on potential technology-based solutions. They formed small cohorts around each challenge, and the Lab paired subject matter experts with each cohort to provide support.

"We received over 50 applicants to the program. The interest in the lab is very strong. It's a great indicator of the instructors' desire to connect with each other and discuss the possibilities of digital learning," says Alecia Ohm, IDLL Program Manager.

Acknowledging the barriers and constraints educators face in obtaining technology, the project provided stipends towards the purchase of equipment and software. Each educator had a budget to spend over the duration of the program.

In the spirit of the program's entrepreneurial approach, the schedule was divided into "sprints" to encourage rapid testing, prototyping and sharing results. There were three sprints in 2018, each approximately six to eight weeks (about the length of a trimester). During the first sprint, educators purchased technology and began implementing the tools in their courses. Technology selections included a mix of hardware and software/Internet-based programs, such as Google Chromebooks, Google Docs, Google Classroom, SMART Boards, C-Reader Pens, Lexia Learning, and Reading Plus, as well as apps for smartphones and tablets.

After the first sprint, participants reflected on outcomes for their students and shared findings with their cohort and subject matter expert. Learnings from the first sprint informed the second—enabling some tweaking, both to tools and technique. A third sprint allowed for yet more fine-tuning based on observations and results, as well as a final opportunity to purchase equipment. This iterative approach provided a low-risk setting for educators to shape their experiment and see what methods and tools impacted their instruction. Just as important, cohorts could discuss what didn't work and find ways to improve outcomes in the next sprint.

Lab Learnings

The Lab included six cohorts of educators working together to address different challenges in their classrooms. Results and reflections from those cohorts are shared here.

1 "IT'S PERSONAL" COHORT

EDUCATORS
Megan Jones
Susan Jones
Eduardo Pimentel
Svitlana Podkopayeva

SUBJECT-MATTER EXPERT
Stephen Alderson

TECHNOLOGY
Reading Plus
Chromebooks
Google Classroom
HTC Vive virtual reality
Lexia
Kahoot

2 "TOOLBOX THINKERS" COHORT

EDUCATORS
Mauricio Blanco
Bria Dolnick
Mary Kanter
Cathy Kramer
Satoy Nakanishi

SUBJECT-MATTER EXPERT
Jeff Goumas

TECHNOLOGY
KineMaster
Brightspace
C-Pen Reader
Microsoft Immersive Reader
Mimio
Google G Suite

3 "FUTURE FOCUS" COHORT

EDUCATORS
Dawn Brill
Sara Layton
Kara Roberts

SUBJECT-MATTER EXPERT
Dena Giacometti

TECHNOLOGY
Microsoft Word
Google Home Mini
Acer Iconia One tablets

4 "ONE CLICK AWAY" COHORT

EDUCATORS
Weiwei An
Mandy Dwyer
Heather Huckstadt
Ramien Manson

SUBJECT-MATTER EXPERT
David Rosen

TECHNOLOGY
Typing.com
SMART Boards
Promethean white-boards
Chromebooks
Apple iPads
I-DEA Curriculum

5 "THE AWAKENING" COHORT

EDUCATORS
Michael Matos
Joy Pak
Carole Walls
Kamil Walton
Nilay Zan-Donmez

SUBJECT-MATTER EXPERT
Elizabeth Romero

TECHNOLOGY
Learning Upgrade
Help Teaching
Northstar Digital Literacy
Google Classroom
Duolingo
Read Naturally
Microsoft PowerPoint

6 "UNPLUGGED POWER SEEKERS" COHORT

EDUCATORS
Julie Frost
Mary Ann Kolls
Karen Voo
Debra Wilson

SUBJECT-MATTER EXPERT
Heather Erwin

TECHNOLOGY
Samsung Tablets
Chromebooks
Google Docs
OER Commons
ReadTheory
MimioTeach
Northstar Digital Literacy

VIVE

HTC Vive

vive.com

SMART

SMART Board

smarttech.com

chromebook

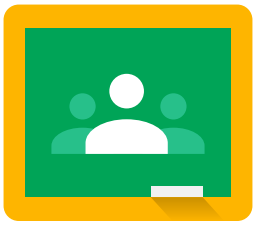
Chromebook

google.com/chromebook

C-PEN

C-Pen Reader

readerpen.com



Google Classroom

classroom.google.com

Google Docs Suite

gsuite.google.com

Lexia Learning

lexialearning.com

"UNPLUGGED POWER SEEKERS" COHORT

Increasing Technology Access

ONE OF FOUR EDUCATORS IN THE "UN-plugged Power Seekers" cohort, Debra Wilson says introducing technology into her adult education classes has "totally changed the way I run my classrooms—it truly is making a difference." Debra teaches language arts, science and social studies part-time for a group of students who hope to obtain their GED.

Through the Lab, Debra obtained both tablet and Chromebook computers for her students. Initially, she was surprised to find that most didn't know basics about how to use the devices. A survey revealed that eight out of her 15 students had never used a tablet; nine had never used a desktop computer.

"We started with fundamentals, then navigating a Word document or downloading a document," she says. "They also started going to educational websites, where they could complete practice lessons and assignments."

Since all of her students had mobile phones, Debra also had them search for learning applications they could use on their phones. She created a lesson plan for teaching students how their phone can be used for educational purposes. "My goal wasn't to have them use their cell during class time; it was for them to use it on their own time, to enhance learning."

After the session, Debra was thrilled that all four of her students who took the GED passed. "They passed on the first try," she says. "I honestly feel that a great deal of this success is due to using the technology with them."

Measuring Success

The cohort created an assessment to measure students' ability to access online resources and format documents. The assessment, an observation checklist, included a simple 0, 1, 2 scale: 0 represented a skill/task the student was not able to complete; 1 was completed with instructor assistance; and 2 was completed independently. A sample of the checklist can be viewed at http://bit.ly/Obchecklist.

An instructor found that up to 13 of her 26 students were not able to use underline, bold, or apply italics in a document (EBRI Reading 101 Class). After a second class focusing on these skills, all students were able to apply formatting with the help of an instructor or on their own.

In a beginning level math class of 16 students, 89% were comfortable using Google Chromebooks, accessing Google Drive, and completing activities at www.mathplayground.com. The instructor noted that while some students needed assistance with navigation, they appreciated the variety of methods used in learning math concepts.

"It's opened doors not just for myself but for my students, both now and the future. I can see that they are engaged in their own learning. The feedback and success we're seeing is awesome."

DEBRA WILSON

ADULT EDUCATION INSTRUCTOR
DANVILLE AREA COMMUNITY COLLEGE, DANVILLE, ILL.

"IT'S PERSONAL" COHORT

Using Technology to Individualize Learning

MEGAN JONES TEACHES ADULT BASIC EDU-cation to students ages 16-60 who test at a 7th to 9th grade reading level. "It's a challenge to get a handle on individual needs when you have 25-30 students," she says. "Many have full-time jobs and children. The younger ones are adept with technology, where older ones are scared. It's hard to get to know them all and learn where they're strong and weak. I was intrigued to leverage technology toward that goal."

Megan's students were already spending about an hour a week in the college computer lab using software designed for ESL and GED students. But, she says, "It didn't give me much feedback or opportunities to customize learning. Everyone worked through the same skill set regardless of where they were at."

A fellow "It's Personal" cohort member suggested trying Reading Plus (readingplus.com), a program that enables students to test into a level and choose a topic they want to read about. Through the Reading Plus lessons, "I'm able to drill down on reading speed and comprehension, and it gradually moves them into more advanced reading," Megan says.

After using a free trial for a semester, several students advanced a level by the next session. "I could see that the more time they spent on it, the better they got," Megan says. "It's Internet-based, so they can do it outside the classroom."

However, she has learned that technology doesn't eliminate the need for human interaction. "The vast majority of my students needed me to encourage them to go in and use it," she says. Eventually, Megan added biweekly face-to-face conferences with students to help keep them on track and show that she was vested in their learning.

Measuring Success

Reading Plus provides a "teacher view" showing progress across a class. Instructors can print certificates to celebrate student level or rate gains. To learn more about the classes using the program, please visit http://bit.ly/ReadingPluslesson.

One instructor found that after adopting Reading Plus activities, 70% (16) students persisted through all classes. In the prior semester—when Reading Plus was not used—only 50% of initially enrolled students persisted to the end of the quarter.

To encourage the use of Reading Plus outside of class, the instructor increased accountability by adding a words-per-minute reading goal and biweekly check-ins with students. As a result, nine out of 15 reported using Reading Plus at home, and four of those students accessed the program three or more times after class.

"The Lab has given me the chance to try something and fail at it. With technology, it's not always going to be right the first time, but I've been clear with my students that we're trying new things. I think it's reassuring to them that I'm still learning—that there are always ways to try to do things differently."

MEGAN JONES

ADULT EDUCATION INSTRUCTOR
WAUBONSEE COMMUNITY COLLEGE, SUGAR GROVE, ILL.

"FUTURE FOCUS" COHORT

Fostering Community & Collaboration

RETENTION IS AN ISSUE IN ADULT EDUCA-tion; many students drop out of a course before it has ended. Sara Layton sees it all the time. She teaches ABE/ASE courses part-time to young people who have dropped out of high school for one reason or another. Sara's class covers math, reading and language, science, and social studies as students work towards a GED.

"When a student drops out of high school, it's often because they don't have support at home and don't feel part of a group," she says. "After being told for years how they could not learn, they start believing they're a failure."

The cohort sought to use technology in a collaborative way to build community among students, in hopes they would feel more connected to the class and their future success. Sara had her students work to create a newsletter around a topic of their choice: teen pregnancy. They had to determine what stories to tell, write the content, select photos, and assemble it all into a layout. They utilized a Google Home device and an iPad that Sara purchased for the class with her Lab stipend.

She said the newsletter project was appealing because everyone has a story to tell. "They learned a lot about each other," she said. "Deeper relationships and trust were established among students in the class." She says the technology was key. "It gave me the freedom to engage students in ways that I wouldn't otherwise have been able to do."

Measuring Success

The cohort had several classes of between five and 13 students contribute to a newsletter. Most instructors found that students enjoyed picking a topic, taking photos, and conducting interviews.

Instructors used a printed survey to gauge student interest and comfort level, using statements such as "I like to read the ESL newsletter and learn about other people in our center" or "The newsletter is ok, but not necessary for me".

A sample version of the cohort's newsletter can be accessed at http://bit.ly/NewsletterforESL.

"We wanted to help our classrooms feel more inclusive and rewarding – so students feel part of something and that they own their educational experience. We're rebuilding people while we're feeding their brains."

SARA LAYTON

ADULT EDUCATION INSTRUCTOR
LAKE LAND COLLEGE, MATTOON, ILL.

PERSPECTIVES FROM OUR SUBJECT MATTER EXPERTS

The Illinois Digital Learning Lab could not be made possible without our six subject matter experts, who worked with the Lab cohort participants to brainstorm potential solutions as well as measure and reflect on their experiences throughout the year. Two of these experts share insights about the current state of adult education and their experience working with the Lab.

Jeff Goumas

JEFF BRINGS NEARLY 20 YEARS OF EXPERI-ence ranging across the spectrum of education, including classroom instruction, professional development, curriculum development, and print and digital educational publishing.

As the founder of CrowdED Learning (blog.crowdedlearning.org), a nonprofit that seeks to leverage crowdsourced adult educational materials, Jeff is passionate about the potential of technology to teach adult learners. "Technology isn't a luxury anymore," he says. "It's no longer just a cool thing to have; it's essential."

Jeff started CrowdED after seeing firsthand the financial limitations technology companies and educational publishers have in serving the adult education market. "There's not a lot of money in adult education," he says.

As a result, teachers often develop their own tools to suit their needs. But there is no easy, centralized way for them to share what they have created, so that other instructors can access the tools.

As the subject matter expert supporting the Lab's Toolbox Thinkers cohort, Jeff has been helping participating educators use technology to further students' critical thinking skills. Over the last few months the group experimented with blogs, interactive whiteboards, laptops, and scanner pens in the classroom.

"It's not just about throwing technology at the problem, or having the device," he says. "It's about knowing how to use the device—equipping the learner to perform tasks, communicate, collaborate, and think critically, so they can problem solve."

PERSPECTIVES FROM OUR SUBJECT MATTER EXPERTS

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David Rosen

DAVID IS A CONSULTANT ADVISING ON adult basic skills and out-of-school youth education projects. He has a particular interest in the integration of technology in education. For many years, he directed the Adult Literacy Resource Institute at the University of Massachusetts Boston.

"One of the problems is the incredible lack of public funding," he says. "There's very little money for these programs, and 80 percent of adult education teachers are part-time. That's a big problem if you're trying to be creative or do research. Research, evaluation and outcomes aren't priorities … they simply don't have time. Most teach three or four courses just to make ends meet."

David's expertise has been invaluable for the Lab's One Click Away cohort. Over the past year, members have created web search activities, experimented with SMARTboards, integrated typing/keyboarding activities, and adopted blended learning curriculum.

For example, one of their conversations centered around the assessment of digital literacy skills. A participant said the Northstar Digital Literacy Assessment (digitalliteracyassessment.org), a common resource, is too difficult for her beginning level students. "So she had developed her own assessment," David says. "It was very simple and very good … a well-designed product that others could use. That's how innovation happens."

David finds the Illinois Digital Learning Lab to be a unique program in the adult basic education space. "It is very unusual and refreshing—providing a technology budget and giving teachers the freedom to meet their needs."

"It's been a fun experience to network with other adult educators and try things we wouldn't have been able to otherwise. Everyone is committed to the Lab and their students. We want our students to be successful, and we're all competing for their interest and time. Technology like cell phones and video games is often an obstacle, but when we use it as a tool to advance, motivate, access work, and be engaged in learning, then we're meeting them where they are."

EDUARDO PIMENTEL

ADULT EDUCATION AND YOUTH INSTRUCTOR
YOUTHBUILD MCLEAN COUNTY, NORMAL, ILL.

Conclusion

ADULT EDUCATORS ARE PASSIONATE ABOUT what they do; they know the direct impact they can have on people's lives. With technology offering so much promise, the Illinois Digital Learning Lab and its funders offer a unique leadership development opportunity to promote entrepreneurship and encourage technology integration for both learners and instructors.

Networking has been a crucial aspect of the lab. Many practitioners teach part-time and have few professional development opportunities to collaborate with others who know the challenges they face in the classroom. The opportunity to attend the Lab kick-off conference, form cohorts, discuss solutions with fellow instructors, and have guidance from a subject matter expert was highly valuable, according to feedback from participants.

Challenges for adult educators continue to exist. Student demographics and goals can vary so much. There is no one-size-fits-all curriculum/model or central repository for obtaining and reviewing products. Most practitioners hear about tools and resources through word of mouth. Clearly there is a strong opportunity for the lab to bring educators together and share best practices around the most effective digital tools, delivery models and support strategies.

After employing an interactive smartboard in morning/evening ESL classes, one of our educators noticed better engagement in class. Her community center in Chicago decided to increase use of the boards. Now every classroom uses the interactive boards for lessons.

Adult education is not only critical to the prosperity and well-being of individuals. It's also a key driver of economic growth and societal advancement that impacts our workplaces and communities. The field needs policy makers and other leaders to embrace the role that adult education plays and see technology as a solution to help adult learners gain the skills needed to participate fully in their communities and thrive in their workplaces.

Help the Illinois Digital Learning Lab help adult educators enhance learning for their students. To learn more, please visit our website at http://bit.ly/il-diglab or reach out to us on Twitter @il_diglab.

digital
learning
lab