

Learning from Each Other: A Partnership Between an Affordable Housing Organization and a Digital Literacy Research Organization

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Authors' Note: There are several people who have been instrumental in the success of the EAH Digital Literacy program. Kristin Taylor, vice president of resident, researched each site and coordinated all the different resource coordinators and their leads, along with property managers, maintenance workers and volunteers. Jiano Ma, vice president of technology, was integral in the infrastructure portion of the California Public Utilities Commission grant which preceded the digital literacy program, he and his IT department staff created and managed all the site-wide and “in-class” sub networks so that the students could have internet access in class as well as at their units. Bill Goedecke with the California Public Utilities Commission provided guidance and continued support with clarifying the roles and responsibilities to best implement the grant award.

Abstract

EAH Housing, an affordable housing organization, partnered with the Literacy, Language, and Technology Research group at Portland State University for the digital literacies portion of a digital infrastructure and digital literacies program funded by a grant from the California Public Utilities Commission. Working with the Literacy, Language, and Technology Research group, EAH Housing developed a successful digital literacy program building on a variety of research-based factors that support adult learning of digital literacies, including quality self-access learning materials that are relevant to learners' goals and easy access to human helpers as learners move through pivotal moments in the learning path.

Keywords: digital literacy, technology literacy, computer literacy, digital literacy programs, affordable housing

EAH Housing is an affordable housing organization that has 225 communities throughout California and Hawaii. According to Laura Hall, president and chief executive officer,

“At EAH Housing, ‘a roof is just the beginning’ as we commit not only to provide quality affordable housing but also to lay the foundation for the well-being of more than 25,000 residents” (personal

communication, December 23, 2020). Part of what is required for that journey is affordable access to the internet, access to internet-enabled devices, and the skills to use both.

In June of 2017, EAH Housing (EAH) partnered with the Literacy, Language, and Technology Research group (LLTR) at Portland State University for the digital literacies portion of a digital infrastructure and digital literacies program funded by a grant from the California Public Utilities Commission. The LLTR is a social-justice oriented community working together on service and basic, applied, and action research projects in diverse educational, workplace, and community settings. The partnership between EAH and LLTR continued throughout the life of the digital literacy program, offering a shared passion to close the digital divide and provide mutual support through regular meetings. Here we describe what LLTR brought to the partnership, the digital literacy (DL) program that EAH developed, and recommendations to help guide other digital literacy programs.

EAH partnered with LLTR to design a DL program to meet the needs of the EAH communities, resulting in a program that reflects findings from research as well as the experiences of other LLTR partners. What follows describes the DL program that resulted from the collaboration.

The Digital Literacy Program at EAH

With appropriate funding, DL programs can be very beneficial to the residents of affordable housing organizations, which include working families and children, seniors, veterans, and people with special needs. Affordable housing

organizations are in a good position to offer DL programs. In the EAH DL program, with funding from the California Public Utilities Commission, EAH hired DL tutors and a DL coordinator, purchased laptops¹ for the participants of the DL program and became a partner with LLTR.

Most EAH sites already have some good supports in place for a DL program. For example, they generally have a computer lab with 10 desktops and a screen in front of the room for an instructor to use. Many sites also have a community room with a kitchen where residents can use high speed Wi-Fi. While most of the individual residences have Wi-Fi as well, the facility-wide Wi-Fi is quite slow. For residents who want it, resident services coordinator can help connect people to low-cost internet programs designed for low-income families.

The DL program at EAH is implemented as a 5-week cohort model with a menu of options for participation available to residents. A class is offered one or two times per week at times that are customized to the needs of the residents at that site. For example, at sites where residents were primarily seniors the classes were held at the noon hour. Drop-in tutoring hours provide supplementary support or a replacement for classes for residents who prefer this more informal option. For those who do not want to participate in person, residents can work independently after an initial orientation and device loan agreement. Telephone assistance is nearly always available.

For residents who opt to work with a teacher or tutor, instruction starts after an initial orientation. After a minimum of direct instruction and modeling, they select topic they want to pursue and begin working independently, getting help when they get stuck. The help is provided by

¹ The Urban Equity Group (formerly Stride Solutions/ReliaTech) was the device vendor for reconditioned Windows 10 Laptops and new Android tablets and helped to build curriculum within Learner Web.

the teacher, tutor, peer, or community volunteer. Residents who complete 8 hours of online learning within the 5 weeks of the program at their site earn a digital device and a certificate of completion that is awarded at a ceremony for the entire cohort. The DL Coordinator provides or coordinates device maintenance.

Recruitment

Effective recruitment is an important component of the EAH DL program. At each site, the process consists of going door-to-door to personally encourage participation, putting up flyers around the building to promote participation, and creating community events such as food bank days during which residents learn about the program. However, with adult learners who juggle many responsibilities, finding time for DL instruction is one of the challenges of participating. To address this, the EAH team offers a menu of ways to take part in the digital literacy class: one-to-one tutoring, several different cohort options to accommodate morning and evening schedules, and being able to reach instructors via phone and email.

Instructional Approach of the DL Program

The instructional approach of the EAH DL program is based on a variety of studies conducted in the Literacy, Language, and Technology Research group. For example, Jacobs et al. (2015) found that learners were “drawn to skills, lessons, examples and resources that they see as being connected to goals they have” (p 4), revealing the importance of learning materials that are relevant, even when those goals shift and grow. The EAH DL program used the Learner Web as a source of relevant learning materials. Learner Web, designed at LLTR, is an online learning support system that provides learning material, both curated and original, that is relevant to learners’ own goals and helps them plan and coordinate their efforts.

It provided the learning support system for the project described here. The design of Learner Web and the learning plans that are the curriculum units within it are based on findings from the Longitudinal Study of Adult Learning, which found that adults work toward their own goals, often through a combination of self-study and program participation (Reder, 2012). Its online format is especially beneficial for supporting self-study because it is available when it is needed and is supported by rich multimedia in multiple languages. Games provide on-demand digital skills practice in areas like keyboarding and trackpad use.

The Learner Web learning materials used by EAH included learning plans for:

- Internet Skills
- Advanced Computer Skills
- Digital Health
- Financial Literacy
- Future Learning

Each learning plan consists of multiple parts, each of which contains information, related links to explore, a knowledge check, and practice opportunities when relevant. For example, the learning plan *Advanced Computer Skills* contains a section on computer care and maintenance, which includes topics like keeping your computer clean, updating your software, backing up your files, and virus and malware protection. The Learner Web materials are kept up to date by the partners who use them. Partners like EAH also use Learner Web to create their own learning plans as the need arises.

Residents in the program select learning goals relevant to their lives, which is crucial for adult learning. For example, three popular learning plans are *Windows 10*, *Computer Basics*, and *Computer Care and Maintenance*, which are challenging, but essential

for many jobs and other activities. Residents who want to continue learning after the 5-week program concludes have access to a learning plan that describes a variety of options, such as GCFLearnFree, Khan Academy, and Crash Course. In addition, individual appointments are available for residents who want to continue to learn new skills. For example, after a 94-year-old resident learned how to use a tablet, she requested an appointment to learn how to do her banking online.

In addition to identifying the importance of quality learning materials, research on adult digital literacy acquisition has also revealed that human helpers play a key role in DL acquisition. The helpers can be teachers, one-on-one tutors, tutors in drop-in programs, fellow residents, or others. The role of human helpers is not the same as technical support. Human helpers help learners build and sustain engagement in the learning process, especially when they experience challenges that might otherwise cause them to give up. Those who are English language learners prefer helpers who are bilingual, even when they don't share a common language. Human helpers create personal connections with

learners, acknowledging the challenges that they experience, and provide encouragement. Helpers can respond to learners based on their needs and interests and can use support strategies specific to the needs of each learner (Jacobs et al, 2015).

Research has also indicated that learners find self-paced learning materials reduce stress and increase comfort with the learning process, allowing them to take as much time as needed to interact with the learning material (Jacobs, et al., 2015). The online, self-paced curriculum that was offered makes it possible to comprehend the content without any fear or anxiety because learners are able to go at their own pace without anyone looking over their shoulder. Moreover, they can ask questions both in the group and/or with a tutor; having a tutor available provides individualized guidance and encouragement. Self-paced learning materials also allowed tutors to get new learners started and then provide differential support to individual learners while others worked independently.

Successes in the Digital Literacy Program

Over the course of the program, EAH's DL program has made an impact on more than twelve hundred

TABLE 1: Popular Learning Plans

Learning Plan	Popular Sections	Average Time Spent
Advanced Computer Skills	<ul style="list-style-type: none"> • Computer Care and Maintenance • Computer Basics • Microsoft Suite 	30 hours
Internet Skills	<ul style="list-style-type: none"> • How to Find What You Want Online • How does the Internet Work? • Social Media 	25 hours
Digital Health Literacy	<ul style="list-style-type: none"> • Health Insurance • Family Wellness • Emotional Wellness 	15 hours
Financial Literacy	<ul style="list-style-type: none"> • Money Basics • Banking • Budgeting 	13 hours

adults. While eight hours is required to earn a digital device, it is typical for residents to spend many more hours in the program. Table 1 includes popular learning plans and the average amount of time that residents spent on them at one of the EAH communities.

Twelve hundred is a number that represents 1,200 success stories of residents who went from being uncertain about technology to using it for work, health, and well...fun! For example, one retired resident who had a passion for fashion learned how to send group emails to her clients with updates on new designs and projects she was working on. This helped her save time she could then dedicate to her creative work as she moved from using paper and went digital. The look of excitement on her face will forever stay in the heart of the tutor who helped her. Another resident who always doubted her abilities to use technology blossomed after her success in the digital literacy program. She later emailed the instructors thanking them for giving her confidence to pursue another passion, painting. One of her paintings is hanging in her digital literacy instructor's home.

Some residents reported a great sense of pride in the certificate they earned in the DL program, indicating that it is the first certificate that they've ever earned and hanging a framed copy on their walls. For other residents, earning the DL program certificate gave them the confidence to continue their educational journey and go on to seek additional courses in information technology and other fields. The certificate was proof that they had the ability to use digital tools to find resources, information, opportunities, and other services online.

An unanticipated impact of the program is related to COVID-19, which amplified the need for digital

equity. With many in-person opportunities, including jobs, education, and medical services being moved online, the need for digital access and skills has become more important than ever. EAH played a pivotal role in their residents' lives because the DL program gave many who would not have had it without learning how to use the tools available to them access to their loved ones (especially seniors) as well as to opportunities and information. The following lessons learned can be applied to a DL program in any setting.

Recommendations for Digital Literacy Programs

Knowing who your learner is -- their stage of life, whether they work and what they do, what digital-ready devices they have, and their comfort level with technology -- is the first step in a DL program because it determines the course and approach of the instruction. Conducting this type of needs assessment can also be an important way to start fostering the connection and sense of support and encouragement that many learners need and appreciate. For example, one resident wanted nothing to do with technology, so a tutor asked her what song she loved the most. Then the tutor played that song on her phone and that sparked that resident's desire to learn about technology.

The flexibility and connectedness of the learning community makes a large difference for many. For the many who choose the option, classes build a community where adult learners have a sense of belonging and fuel each other's learning. Something as simple as learning to use Google translate, for example, opens the way for a group of multilingual residents to talk to each other, make friendships, and use it as a tool in their daily lives.

Selecting learning materials that are relevant to learners' goals and allows for self-paced study are both very important. Also important is

selecting a platform that gives easy access to the reporting features needed for grant reporting. It was important for EAH to easily make specialized curriculum based on the needs of the organization. For example, the DL coordinator created learning plans with instructions on using different devices as they were added to the digital literacy program.

Every success story we described here involved the presence of a teacher, tutor, peer or community volunteer who guided, encouraged, and supported a learner. The availability of human helpers is an important component of the success in the EAH DL program as was the fact that the program removed barriers to accessing these human helpers by offering a menu of options for doing so.

Areas of Improvement

The role of community support can be very important in a DL program; many residents came to the DL class to socialize with neighbors while also learning new skills. It would have better supported a strong learning community if it had been possible to organize cohorts more clearly and with more advance notice. A greater use of

on-site volunteers could have better supported the learning community by helping with recruitment and assisting in the classes.

One thing that we learned the hard way is that it is important to spend time up front developing email accounts that people really want to use. While it is quick and convenient to set up generic accounts and assign them to residents, that doesn't create the sense of ownership over an email account that is important in developing one's digital literacies.

The partnership between EAH and LLTR provided mutual benefits. Besides sharing a passion for closing the digital divide, members of both groups helped each other in the development of an effective DL program, supporting many adults in their journey toward confidently using their digital devices to accomplish their own goals. In the end, what matters is helping the residents' have positive experiences developing their digital literacy skills. A resident, when shown how to use the Zoom video conferencing platform said, "Do you know how much this matters in my life? Do you know how much this matters in my life? You changed my world!"

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