

Public Library-Led Digital Literacy Training to Older Adults in Social Housing



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Digital Literacy

What is it?

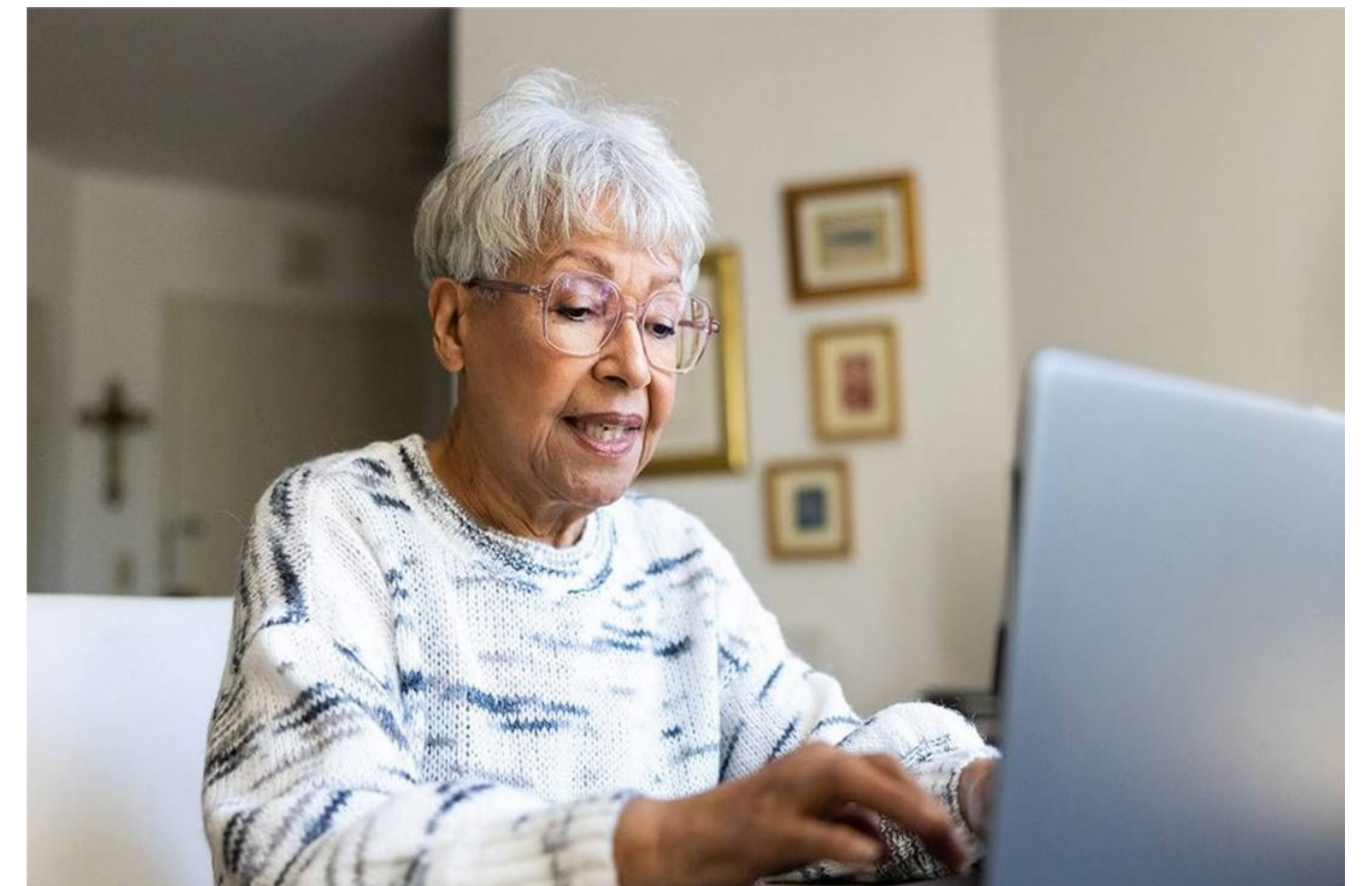
- Digital literacy refers to the “set of skills, knowledge and attitudes required to access, create, use, and evaluate digital information effectively, efficiently, and ethically” (Julien, 2018, p. 2243)
- It encompasses ***two sets of skills***:
 - 1) Skills to operate and utilize digital technologies such as computers, tablets and smart phones
 - 2) Skills to access, create, use, and evaluate digital information



Digital Literacy

Why is it important?

- As the world becomes more digital, it is essential that individuals become more digitally literate to fully participate and thrive in society
- This is especially true of marginalized older adults (e.g., older adults living in social housing) as it leads to greater well-being:
 - Less isolation and loneliness
 - Better access to information and services
 - Improved ability to conduct transactions
 - Increased ability to do hobbies & access entertainment



Digital Literacy

Barriers and Opportunities for Older Adults in Social Housing

- ***Barriers:***

- Lack of access to the internet, devices, and training
 - Financial, mobility, and psychological barriers
 - Training often not tailored to older adults' needs

- ***Opportunities:***

- Community-led programs such as those led by ***public libraries*** can provide free (low-cost) ***training***
 - Internet safety
 - Photo and document management
 - Improved ability to conduct transactions online
 - Increased ability to conduct hobbies & access entertainment



Digital Literacy

Public Library-Led Digital Literacy Training

- How public libraries can best deliver this training is unclear
 - A recent survey of administrators and instructors at public libraries across Canada about the delivery of digital literacy training indicates room for improvement (Detlor et al., 2024)
- In response, a *two-phased “action research” case study* is being conducted
 - The study concerns the mobile delivery of Android tablet training by a public library to older adults living in social housing at their place of residence

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Evidence Based Library and Information Practice

Research Article

A Survey of Public Library-Led Digital Literacy Training in Canada: Perceptions of Administrators and Instructors

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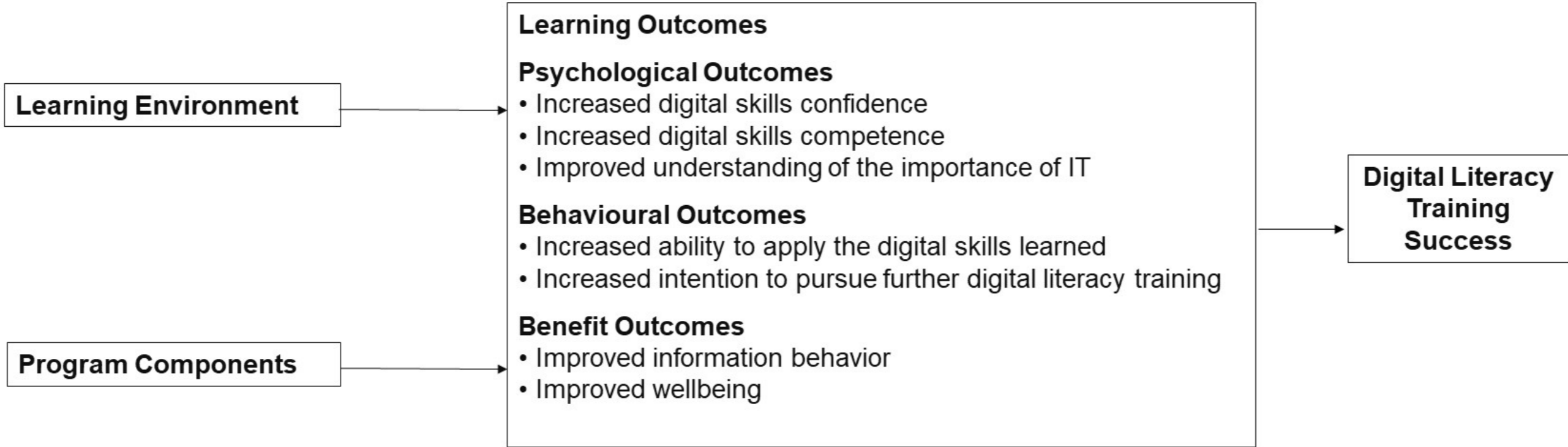
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Digital Literacy

Public Library-Led Digital Literacy Training

- A **conceptual framework** – adapted from Detlor et al.’s (2022) model on community-led digital literacy training success – shapes the case study
 - This conceptual framework is grounded on the lengthy and historic theoretical foundations of Information Literacy Instruction produced in the Library and Information Science field over the last 40 years.... **Back to the Future!**



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RESEARCH ARTICLE

JASIST WILEY

Community-led digital literacy training: Toward a conceptual framework

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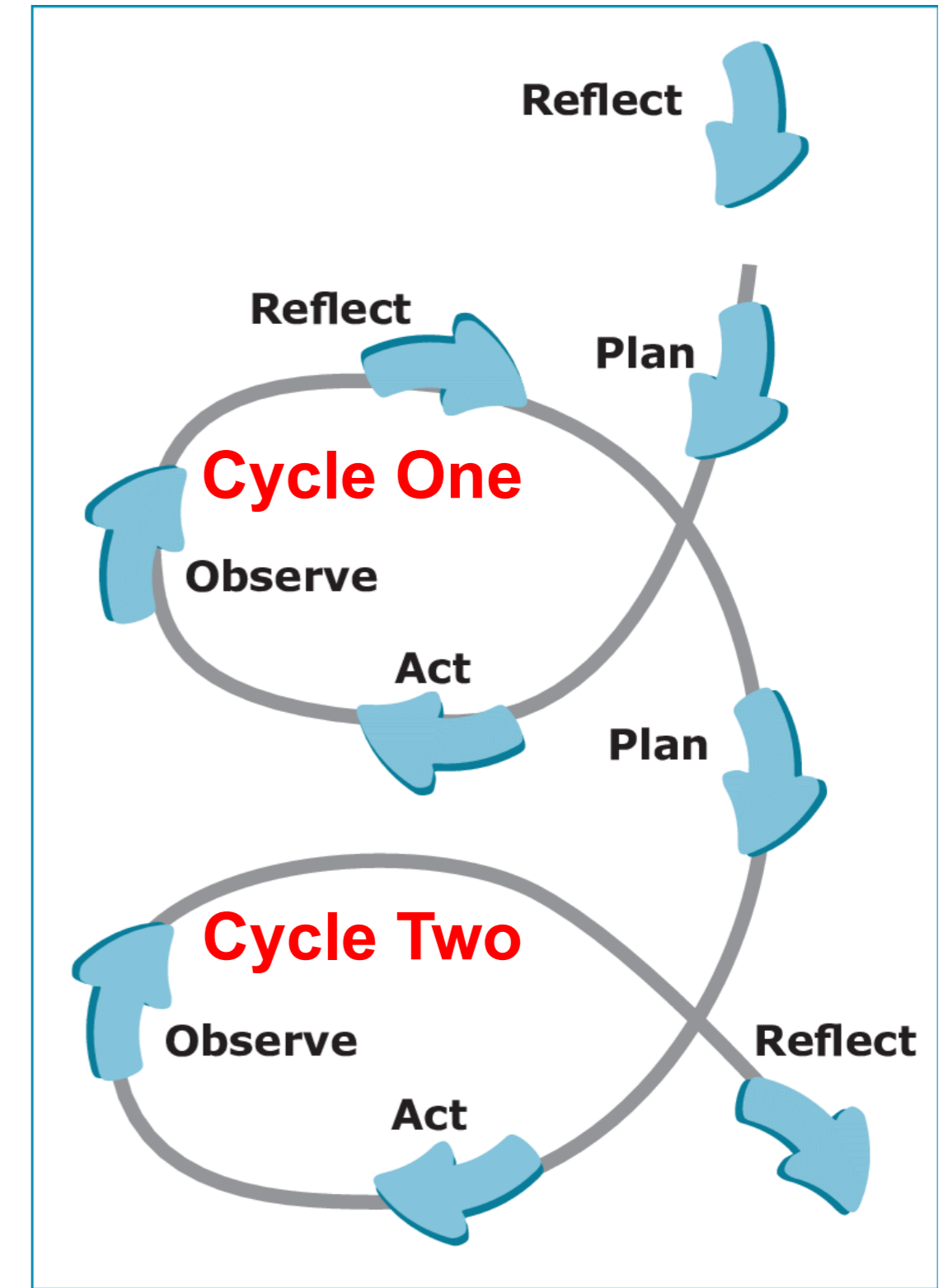
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Abstract
An exploratory study investigated the factors affecting digital literacy training offered by local community organizations, such as public libraries. Theory based on the educational assessment and information literacy instruction literatures, community informatics, and situated learning theory served as a lens of investigation. Case studies of two public libraries and five other local community organizations were carried out. Data collection comprised: one-on-one interviews with administrators, instructors, and community members who received training; analysis of training documents; observations of training sessions; and a survey administered to clients who participated in these training sessions. Data analysis yielded the generation of a holistic conceptual framework. The framework identifies salient factors of the learning environment and program components that affect learning outcomes arising from digital literacy training led by local community organizations. Theoretical propositions are made. Member checks confirmed the validity of the study's findings. Results are compared to prior theory. Recommendations for practice highlight the need to organize and train staff, acquire sustainable funding, reach marginalized populations, offer convenient training times to end-users, better market the training, share and adopt best practices, and better collect and analyze program performance measurement data. Implications for future research also are identified.

Methodology

Action Research

- Action Research aims to solve practical problems while expanding scientific knowledge
 - The **researcher actively intervenes** in the phenomenon under investigation while simultaneously studying its effects
- It is an interactive research process where **learning occurs by both the researcher and participants within the context of the participants' social system**
 - Learning occurs in **cycles**, where learnings from a prior intervention are applied to the next (modified) intervention where each cycle involves four stages:
 - i) **Planning**
 - ii) **Acting**
 - iii) **Observing**
 - iv) **Reflection**



The Study's Action Research Cycles

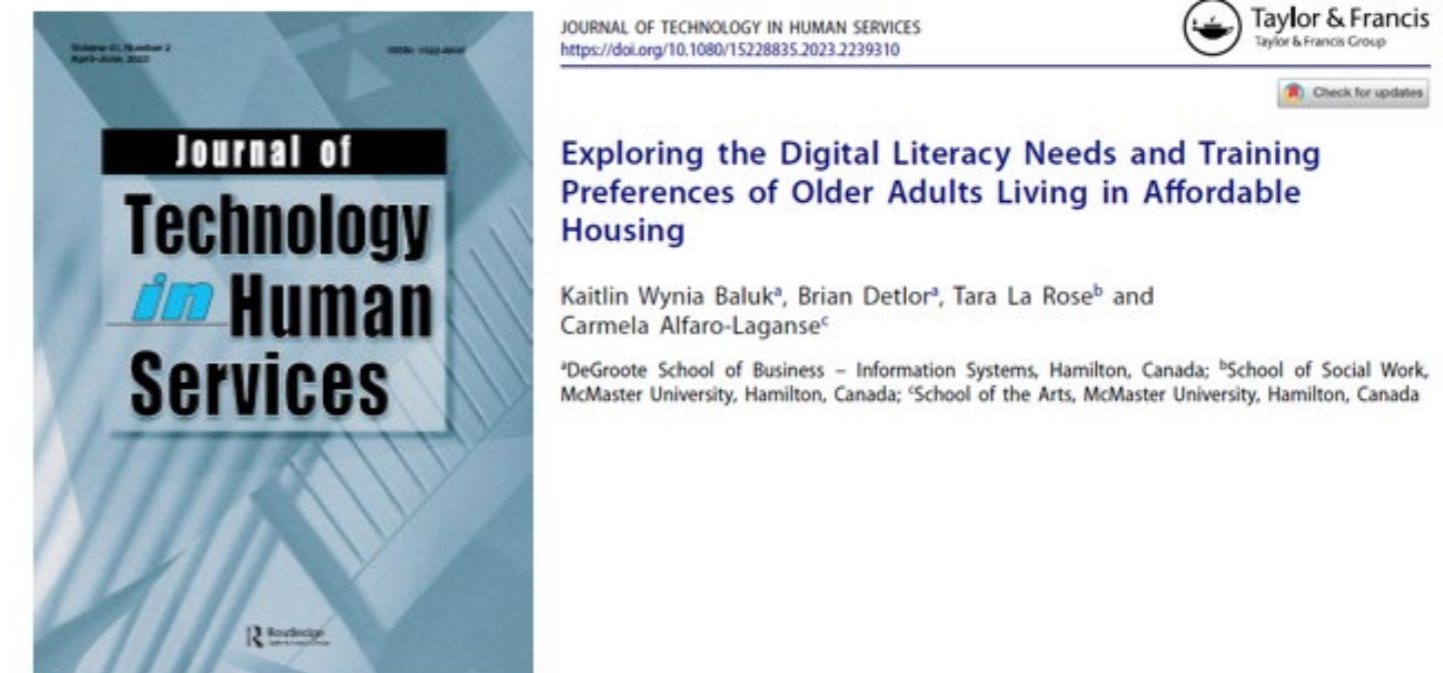
Methodology

Initial Reflection

- Identification of CityHousing Hamilton (CHH) older adults' digital literacy needs and training preferences
 - 15 CHH older adults interviewed in 2022

RESULTS:

- CHH seniors need training that is adaptable to an individual's interests, promotes confidence, and addresses financial barriers to using digital devices effectively
- Findings also affirm the value of accessible training located within seniors' social networks (e.g., friends, family)



Methodology

Cycle One

- Hamilton Public Library (HPL) delivered Android tablet training to CHH older adults
 - Embraced the needs identified in the Initial Reflection
 - Training was delivered on site at the older adults' place of residence
 - Free tablets provided to older adult participants
 - Data collection completed in 2024, and data analysis is almost complete

THE TRAINING:

- HPL provided four weekly Android tablet training sessions to 18 CHH older adults residents onsite in a classroom at First Place
- Additional tablet training sessions were provided in an on-site Mobile User Experience Lab (MUXL)

DATA COLLECTION:

- ***Pre- and post-interviews*** with older adult learners, 1 CHH administrator, 2 HPL administrators, 1 HPL instructor
- ***Observations*** of the HPL-led training sessions
- ***Biometric data collection*** (e.g., eye tracking, skin conductance) and ***audio/video recording*** of MUXL training sessions

Methodology

Cycle One – Classroom Training



Methodology

Cycle One – MUXL Training



Methodology

Cycle One – Lessons Learned

- Hire a third-party company specializing in older adult digital skills training to develop an improved Android tablet training curriculum
- Have this 3rd-party company provide HPL instructors with a one-day workshop on how to teach this new training content to older adults
- Extend the training program from 4 weeks to 6
- Provide handout materials in advance
- Offer an extended break during each training session
- Provide a Q&A period at the end of each classroom session
- Include more hand-on exercises during each class
- Assign homework
- Have 2 cohorts of older adults (one cohort is brand new; the other is repeat learners)
- Limit the size of each classroom cohort to 12 older adult learners
- Have two helpers (graduate research assistants) assist the HPL instructor during each classroom session
- Have older adults self-form peer groups of two to four learners. These small learning groups would conduct their own peer-to-peer tablet training sessions outside of the classroom

Methodology

Cycle Two

- HPL-led tablet training on-site to CHH older adults
 - Embraced the lessons learned from Cycle One
 - Data collection completed in May 2025

THE TRAINING:

- HPL provided six weekly Android tablet training sessions to 2 cohorts of CHH older adults residents onsite in a classroom at First Place (n=22)
 - Training content developed by Tech Coaches
 - Helpers hired to assist
- Additional peer-to-peer tablet training sessions were provided on-site via Mobile User Experience Lab (MUXL)

DATA COLLECTION:

- ***Pre- and post-questionnaires (CPQ-12, ATTQ, WOOP)***
- ***Post-interviews*** with older adult learners, administrators, instructors, and helpers
- ***Observations*** of the HPL-led and MUXL training sessions
- ***Biometric data collection*** of MUXL training sessions

Methodology

Cycle Two – Classroom Training



Methodology

Cycle Two – MUXL Training



Next Steps

- Finish the data analysis for Round 1
 - Have my PhD student defend their dissertation (which is based on Round 1)
 - Publish findings for Round 1
- Commence data analysis for Round 2 after the data analysis of Round 1 is complete
 - Publish findings for Round 2

Concluding Remarks

- Action Research is an **effective methodology** to study the delivery of mobile public library-led digital literacy training to older adults in social housing
 - Assesses a phenomenon in a real-world setting (leads to strong recommendations for practice)
 - Both researchers and participants actively participate in reflection and ideas for interventions
 - The lessons learned and implemented from Round 1 to Round 2 were greatly appreciated by the older adults who participated in both rounds of the study
 - Negatives: time-consuming and messy
- The case study embraces the collection and analysis of **biometric data**
 - This methodological approach is novel to digital literacy training research which typically relies on interviews and observations
 - Older adults were excited about the use of MUXL
 - Led to increased participation in the research project
- Giving older adults **free tablets and cell-enabled data service**
 - Provides real motivation for participation in the training
 - Encourages older adults to take the training seriously