Tech 4 Seniors Program
Final Evaluation Report

St. Paul's PACE

CCDC COMMUNITY CONGREGATIONAL DEVELOPMENT CORPORATION

sarsis Health | Technology Solutions

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SoCAN South County Action Network

COUNTY OF SAN DIEGO HEALTH AND HUMAN SERVICES AGENCY | LIVE WELL SAN DIEGO

RENEWING LIFE

THE SALVATION ARMY BLOOD AND FIRE

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INTRODUCTION

Tech for Seniors is an innovative program designed to reduce social isolation and loneliness among lower income older adults through age-friendly technology training, technical assistance, and intergenerational engagement. This program is funded through the Community Congregational Development Corporation (CCDC). The Center for Community Research (CCR) was contracted by the South County Action Network (SoCAN) to evaluate the implementation of the Tech for Seniors Project. This final evaluation report summarizes program activities and findings utilizing data collected throughout program implementation.

PROGRAM GOALS

Reduce loneliness and social isolation among older adults.

Increase technical skills among older adults through age-friendly technology training.

PROGRAM COMPONENTS AND OVERVIEW

The Tech for Seniors Program was implemented at two sites located in South Bay San Diego, Congregational Towers, and the Salvation Army Chula Vista Silvercrest Residences. Program enrollment began in March 2021 and went through January 2022, with participants joining the program on a rolling basis. The program took place over six months with training sessions provided in both a group and individual setting to meet the needs of participants' varying levels of technology experience. Training topics are outlined below and focused on utilizing technology for various purposes including communication, health and wellness, education, and entertainment.

To be eligible to graduate from the program and keep the iPad upon course completion, participants were required to attend a minimum of five classes. The first three classes were mandatory, and from there, participants selected two "elective" classes to complete within six-month time.

Tech for Seniors Course Training Topics

Class 1
Tech 101 - Internet Security for Seniors

Class 2
It's All About Touch - How to use an iPad

Class 3
What's my Password? - Setting up Accounts

Class 4
Zoom and Facetime - Communication Apps Training

Class 5
Meet the Volunteers & Weeks 1-4 Review

Class 6
I Learned it on YouTube - How to Use YouTube

Class 7
Health and Tech - Using Apps for Senior Wellbeing

Class 8
How Do I Do That Again? - Weeks 1-8 Review

Class 9
Hearing and Vision Assistive Technology

Class 10
Stay Connected with Tech for Seniors and Graduation

EVALUATION METHODOLOGY

The evaluation utilized for this project was a mixed method, two group (participant and comparison group) repeated measured design with two measurement points: baseline and program completion. **Table 1** outlines data collection measures utilized and timepoints for collection.

Table 1. Data Collection Matrix - Measures and Time Point

Measures	Program Participants		Comparison Group	
	Pre	Post	Pre	Post
Demographics	X		X	
Loneliness Assessments • UCLA Loneliness Scale • Lubben Social Isolation	X	X	X	X
Mobile Device Proficiency Questionnaire (MDPQ)	X	X	X	X
Satisfaction Survey		X		
Focus Groups		X		

Note: Individuals not participating in the program were recruited to participate in the comparison group from both program sites (e.g., Congregational Towers and Silvercrest). A small incentive was provided to comparison group members at each data collection point in the form of a $10 Visa gift card.

PARTICIPANT GROUP CHARACTERISTICS

In total, 59 older adults participated in the Tech for Seniors Program, across both sites, between March 2021 and January 2022. Summarized below in **Figures 1-3** is demographic information reflecting the program participants. Comparison group demographics are summarized in **Appendix A.**
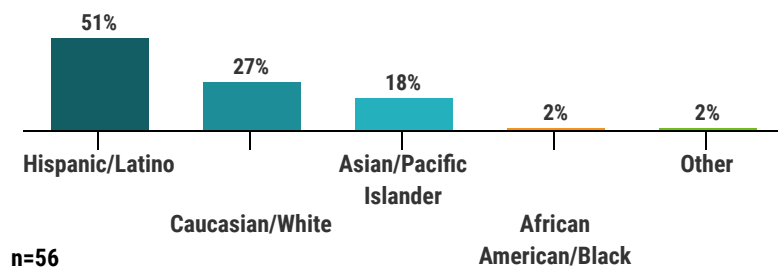
23
Salvation Army Chula Vista Silvercrest Residences

+

36
Congregational Towers

=

59
Participants Total

Figure 1. Race/Ethnicity

- Hispanic/Latino: 51%
- Caucasian/White: 27%
- Asian/Pacific Islander: 18%
- African American/Black: 2%
- Other: 2%

n=56

Figure 2. Sex

- Male, 25%
- Female, 75%

n=57

Figure 3. Age

- 60-69: 12%
- 70-79: 47%
- 80-88: 37%
- >90: 4%

n=57
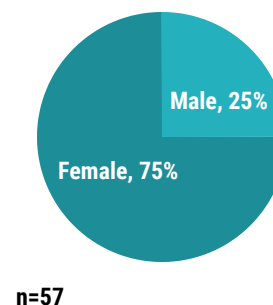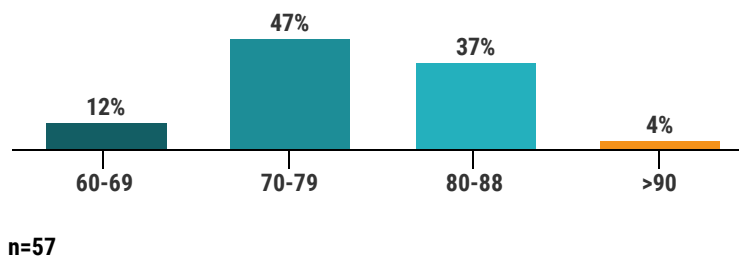
PROGRAM OUTCOMES: MOBILE DEVICE PROFICIENCY QUESTIONNAIRE (MDPQ)

The MDPQ assesses experience with and skills for using mobile devices across eight domains. Each of the 46 items is rated using a 5-point scale with options ranging from "never tried" (1) to "not at all" (2) and "very easily" (5). The total score ranges from 8 to 40, with higher scores reflecting greater proficiency.

Pre-Program MDPQ Scores: At baseline, there was no significant difference in MDPQ scores between program participants and the comparison group. The summary statistics outlined in **Table 2** show that baseline MDPQ scores were 18.1 for participants and 18.8 for the comparison group.

Table 2. Pre- and Post-MDPQ Scores by Condition

	Condition		
	Participants, M (SD)	Comparison, M (SD)	P value*
Pre-MDPQ	18.1 (8.3)	18.8 (8.7)	0.77
Post-MDPQ	30.5 (6.1)	19.9 (10.1)	<0.05**

*Independent t-tests to assess between group differences
**Statistically significant difference (p value = <0.5)

Post-Training MDPQ Scores: Overall, program participants demonstrated a statistically significant increase in MDPQ scores upon program completion, in both overall scores and across all eight domains. **Table 3** provides a detailed summary of participant baseline and follow-up MDPQ scores. Average MDPQ scores for participants at follow-up were 30.5, demonstrating a 12-point average increase from baseline. In contrast, no significant differences from baseline to follow-up were detected within the comparison group. Comparison group scores are provided in **Appendix A** for reference.

Table 3. Participant Pre- and Post-MDPQ Scores

Scale	Baseline			Follow-Up			P value	Mean Difference
	N*	M	SD	N*	M	SD		
MDPQ	39	18.1	8.3	18	30.5	6.1	<0.05^	+12
Mobile Device Basics	56	3.3	1.2	41	4.5	0.7	<0.05^	+1.2
Communication	50	2.5	1.3	37	4.0	1.0	<0.05^	+1.5
Data and File Storage	59	1.7	1.0	47	2.7	1.4	<0.05^	+1.0
Internet	50	2.2	1.2	36	3.8	1.3	<0.05^	+1.6
Calendar	55	2.1	1.4	47	3.5	1.5	<0.05^	+1.4
Entertainment	49	2.3	1.2	38	4.1	0.9	<0.05^	+1.8
Privacy	57	2.1	1.1	47	3.6	1.1	<0.05^	+1.5
Troubleshooting and Software Management	54	2.0	1.1	44	3.8	1.1	<0.05^	+1.8

*n varies due to assessments with one or more missing items.
**MDPQ = Mobile Device Proficiency Questionnaire
^=statistically significant finding (paired t-tests)

Figure 4 provides a visual of baseline and follow-up overall MDPQ scores, and across the eight sub-domains of the MDPQ.

Figure 4. Participant Pre- and Post- MDPQ Scores - Overall & Individual Domain Scores

Baseline (n=39-57)   Follow-Up (n=18-47)
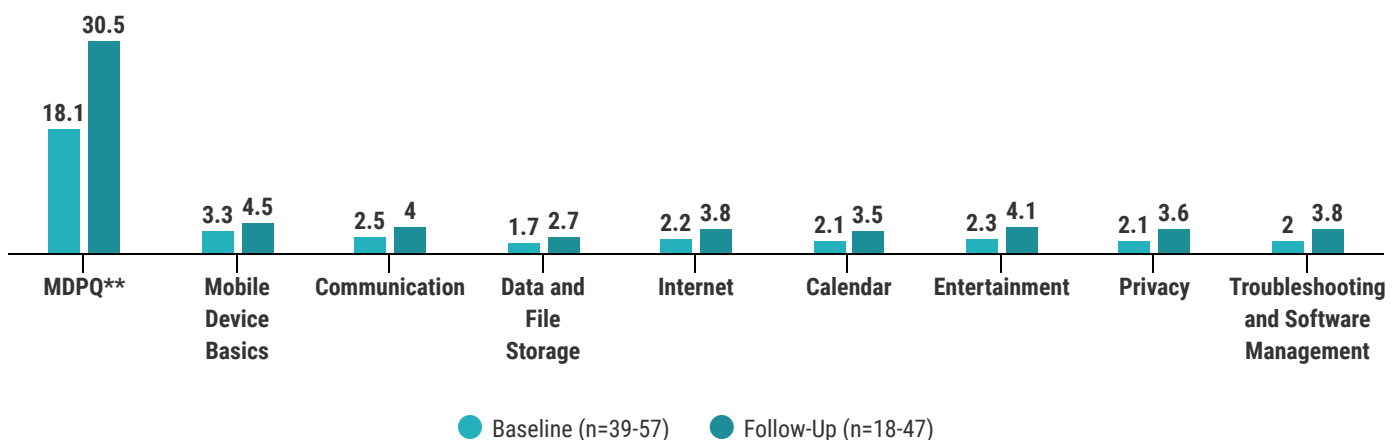
Note: The total score for the MDPQ ranges from 8 to 40, with higher scores reflecting greater proficiency.

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PROGRAM OUTCOMES: SOCIAL ISOLATION

The Lubben Social Network Scale (LSNS-6) is a six-item assessment that gauges social isolation in older adults by measuring the number and frequency of social contacts with friends and family members and the perceived social support received from these sources. Scores can range between zero and 30, with a higher score indicating more social engagement. A score of less than 12 indicates the individual "at risk for social isolation".

Pre-Program Social Isolation Scores: At baseline, there was no significant difference in social isolation identified between program participants and the comparison group. The summary statistics outlined in **Table 4** show that baseline social isolation scores were 17.8 for participants and 19.4 for the comparison group.

Table 4. Pre- and Post-Social Isolation Scores by Condition

	Condition		
	Participants, M (SD)	Comparison, M (SD)	P value*
Pre-Social Isolation	17.8 (6.3)	16.1 (5.3)	0.26
Post-Social Isolation	19.4 (5.7)	18.9 (5.6)	0.67

*Independent t-tests to assess between group differences
**Statistically significant difference (p value = <0.5)

Post-Program Social Isolation Scores: At follow up, there were no significant differences in social isolation scores between baseline and end of study among program participants **(Table 5).**

### Table 5. Participant Pre- and Post-Social Isolation Scores

	Baseline			Follow-Up			
	N*	M	SD	N*	M	SD	P value
Social Isolation	56	17.8	6.3	47	19.4	5.7	0.31

*n varies due to assessments with one or more missing items.
^=statistically significant finding (paired t-tests)

Additional descriptive analyses were conducted to observe changes in the percentage of participants categorized as being "at risk of social isolation". From baseline to follow-up there was a seven percent decrease in participants identified as being at risk of social isolation, from 17 percent to 11 percent, respectively.

Figure 5. Social Isolation Among Participants: Baseline and Follow-Up

- At Risk of Social Isolation
- Not at Risk of Social Isolation
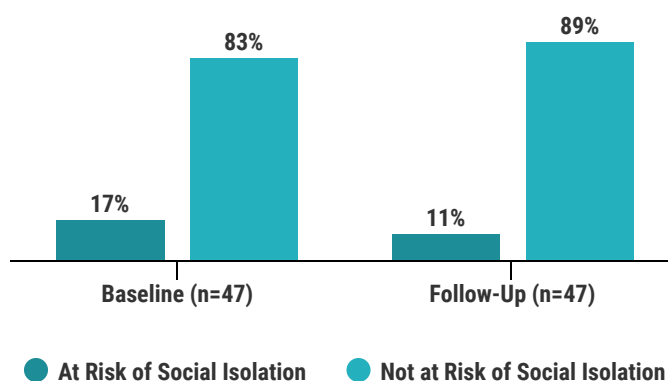
PROGRAM OUTCOMES: LONELINESS

The UCLA Loneliness Scale is a 20-item assessment that measures subjective feelings of loneliness. Scores can range from 20 to 80, with higher scores indicating greater levels of loneliness.

Pre-Program Loneliness Scores: At baseline, there was no significant difference in loneliness identified between program participants and the comparison group. The summary statistics outlined in **Table 4** show that baseline loneliness scores were 39.8 for participants and 36.6 for the comparison group.

Table 6. Pre- and Post-Loneliness Scores by Condition

	Condition		
	Participants, M (SD)	Comparison, M (SD)	P value*
Pre-Loneliness	39.8 (9.3)	37.2 (11.2)	0.23
Post- Loneliness	36.6 (8.8)	37.6 (9.9)	0.72

*Independent t-tests to assess between group differences
**Statistically significant difference (p value = <0.5)

Post-Program Loneliness Scores: At follow up, there were no significant differences in loneliness scores between baseline and end of study among program participants **(Table 7).**

Table 7. Participant Pre- and Post-Loneliness Scores

	Baseline			Follow-Up			
	N*	M	SD	N*	M	SD	P value
Loneliness	57	39.8	9.3	32	36.6	8.8	0.39

*n varies due to assessments with one or more missing items.
^=statistically significant finding (paired t-tests)

Additional descriptive analyses were conducted to observe changes in participants loneliness category distribution (e.g., no/low, moderate, and high loneliness). From baseline to follow-up, there was an 8 percent decrease of participants scoring within the high loneliness category, from 29 percent to 21 percent, respectively.

Figure 6. Participant Pre- and Post-Loneliness Categories

Baseline (n=48)   Follow-Up (n=48)
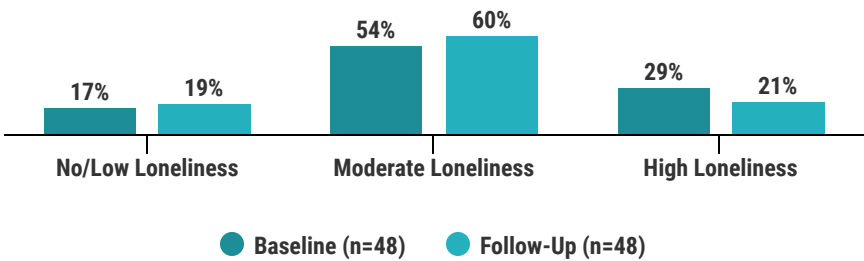
PROGRAM OUTCOMES: PARTICIPANT SATISFACTION

Overall, participants were highly satisfied with the program, with 93% (40) of participants finding the information useful, 77% (33) indicating they would be interested in future workshops, 88% (38) reported they would recommend the program to family and friends, and 79% (34) reporting that they had shared information learned with family and friends. Additionally, 90% (27) of participants indicated that they intend to use their iPad more because of the program, and 83% (33) reported using the iPad more because of their participation in the program.
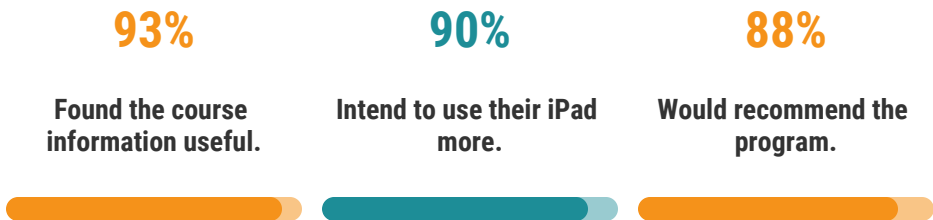
93%
Found the course information useful.

90%
Intend to use their iPad more.

88%
Would recommend the program.

Table 8. Participant Satisfaction with the Tech for Seniors Program

Survey item	Survey responses: % (n)		
	Strongly Agree	Neutral	Strongly Disagree
The information was useful.	93% (40)	5% (2)	2% (1)
I would be interested in future workshops.	77% (33)	21% (9)	2% (1)
I have shared information I learned with family or friends.	79% (34)	19% (8)	2% (1)
I would recommend the program to family or friends.	88% (38)	9% (4)	2% (1)
Because of the program, I intend to use my iPad more.	90% (37)	7% (3)	2% (1)
Because of the program, I have used my iPad more.	83% (33)	15% (6)	3% (1)

Experience of Using iPads: Perceived Benefits to General Health/Wellbeing: In addition to discussing benefits and challenges experienced while participating in the iPad training, participants shared how using the iPads improved their daily lives, general health, and wellbeing. Overall, participants felt that using the iPads benefited their lives in a variety of ways, summarized below.

Increased connection with community, family, and friends. For many participants, the iPad training allowed them to increase communication and connection with loved ones and community in a variety of ways including email, video calling, and messaging (6 mentions).

"It was exciting to participate and for me, the iPad is very much important to me **so I can contact my family all over the world. Before I couldn't do that.** I am in a place where **I can connect again where I am from,** before they could not hear from me and now, they do. "

"I **like talking to my friends and kids on it,** because I can see them real good. And the **pictures that they send me make me really happy."**

Some participants shared that they no longer feel like "outsiders", and that the technology training increased their confidence and connection with younger people. (2 mentions)

"Knowing we can communicate with other people on these devices is getting us up to where **we can do things with other people, especially younger people.** I always **felt like I was on the outside looking in** because I could not do things they can do and now there is one thing I can do, and **it really makes me feel a lot better about myself."**

Rediscover past hobbies and explore new interests. Participants discussed how the iPad has decreased their loneliness and boredom by opening a world of resources. Having the tools to access these interests has brought many participants happiness, laughter, and decreased loneliness.

Music (4 mentions)

"For me, if I want to listen to music, I can do that with my iPad so **it brings me joy in my heart. I can dance more again."**

"It has changed me in many ways because **although I am alone in the house I do not feel alone** because I can **play music videos."**

"I arrive at my apartment and **no longer feel sad,** I can grab the iPad and **listen to music**. I like Elvis Presley and his music is inspiring and eternal. The **iPad helps with loneliness,** and I no longer watch television because television is repetitive and the iPad **gives me a variety of entertainment,** fun things to do, knowledge and **I no longer feel alone"**

"For me, **since this program started for the seniors, I think every senior was happy.** At least I can say that, I have been so happy. Because to me, **it gave me a lot of happiness in my apartment. Before I was so bored. Having music again makes me so happy."**

YouTube/Games/Reading (3 mentions)

"I learn a lot with YouTube. **I learn to cook, learning new recipes, I learn how to mix colors for my paintings so** for me this is a blessing."

"In May I was **diagnosed with cancer** and for a long time I was **feeling bad** and little by little when I **grabbed the tablet reading a little or playing games,** I could **start to feel better** and now to be **honest I feel very good, and I try not to remember my health problems."**

Renewed Learning and Staying "sharp" (6 mentions). Many participants shared the cognitive benefits of using the iPad as they are now able to access information and learn a new skill.

"It **helps me to get my brain to work** if I can put it that way. **My sister had Alzheimer's and I do not want it, so I am trying to keep my brain working."**

"Being able to learn new things with the iPad opened a **Public Library at the tip of my fingers** without having to leave my house, but I have all the **knowledge at my disposal** for example I like to pray and learn new prayers or about metaphysical knowledge. **With the iPad, we as older people can continue learning."**

"I can **stay sharp when I use it** and can **access all sorts of information."**

Additionally, using the iPad provides a way to maintain independent living activities and for some, allows them greater control over their healthcare with access to resources for understanding.

IMPLEMENTATION SUCCESSES, CHALLENGES, AND LESSONS LEARNED
INFORMED BY STAFF INTERVIEWS

Tech for Seniors program staff participated in key informant interviews via Zoom to share their experiences and perspectives from implementing the program including successes, challenges, and recommendations. A total of three 60- to 90-minute interviews were conducted.

Analysis of the interviews aligned with the Focus Group findings on key benefits to the participants as well as to the program staff members. The interview results are below, summarized in four topic areas: (1) Key Successes; (2) Challenges & Lessons Learned; (3) Intergenerational Engagement; and, (4) Reflections & Looking Ahead.

Key Program Successes: Program instructors were asked to share key successes from the project and their associated roles. The focus in this area was the role of the teacher meeting the needs of older adult students. In addition to the stimulating settings of in-person learning and group sessions, there were specific notable successes.

> *Alleviating Loneliness for Older Adults.* "We helped seniors **who were isolated from being alone and from Covid to connect with their families** and with each other by using the internet. **Their worlds expanded because of this."**
>
>> **Example: One 80-year-old learned to go online and talk to her family and friends through messages and Facetime**. And she learned new skills like finding online health information and taking photos, **which all helped expand her world.**
>
> *Providing Age-Friendly Technology Training.* "Although teaching students how to use the device was important, **part of the success is understanding an elder.** We were able to teach people who had a hard time understanding technology or had no knowledge of technology at all."
>
>> **Example:** One student was able to master the iPad, buy a smart phone, and use to communicate, to email, send messages, **it changed her life forever and it opened her life to new things.**

Challenges & Lessons Learned: During the program, there were unexpected challenges that were met and solved, which also improved the process for future classes, summarized below.

> **Physical Adaptation: "Not everyone could physically hold tablets or use touchscreens easily because they have arthritis.** We **found softer cases** and also learned that some students needed a **stylus to access the screen."**
>
> **Memory Support:** "We have elders experiencing forgetfulness or dementia and learned **you can't give a person with dementia a 45-minute class with all of these details, so you have to be patient and flexible.** When needed, teachers **would do a quick review or stay after class for students' questions."**
>
> **Building up "Baseline" Confidence for Engagement:** "One student said, "Oh no, I can't do this," but she finished successfully without extra classes. **She got confidence from hearing how other people were learning.** We use social media a lot, it's a great platform not only to show it to elders but also to show them other elders' testimonials. **It's been a great help to show them, look your neighbors are doing it!"**
>
> **Language Accessibility: "**Another example of key success was overcoming a language barrier, and working together as a group."

> **No matter the challenges, we found a way to overcome them if it was arthritis, or sometimes dementia or memory, or languages. If we had patience, we could help students succeed and have more knowledge and confidence.**

Benefits of Using Technology: "The program started during Covid when many elders felt lonely and sad. Some were quarantined with family but others were alone. Hopefully nothing like this ever happens again, but now they have access to family and friends through Zoom, FaceTime and Safari. With an iPad they can **SEE their family members nearby or in other countries."**

> *Improved Independent Living:* "With iPads, seniors can be independent, **pay their bills online, send messages to their family, video-chat, watch movies and send emails.** This honestly changed their lives and brought joy."
>
> - "During the pandemic, elders couldn't go to the doctor **but they could look up health information to think about when to call the doctor."**
> - "One student has back problems and she fo**und pillows online to ease her pain."**
> - "Sometimes technology helps emotionally and physically, **when elders have someone to talk to they feel better."**
>
> *Building Community:* "**Classroom relationships extended into daily lives** and brought seniors closer together. We even sometimes had groups communicating across classes and outside of classes."
>
> - **"There seemed to have been more depression and loneliness,** but not since everyone started communicating."
> - "A lot of people need this, it's a huge demand. **This is a necessity and technology should be accessible to everybody."**

Intergenerational Engagement: During the Tech for Seniors program, older adults increased their experiences with younger people, both within their own families and with their teachers. Staff members also reported enjoying benefits of new interactions with seniors, select examples below.

"Not only could seniors **talk and write to their children and grandchildren, but they could also talk about movies, or videos or share photos together**, and **they were excited to talk about what they learned."**

"Even when they couldn't be together, **they could talk or share to all ages, even in another country."**

"When they meet with their nieces and nephews, now they say, **Look sweetie, what I can do or what I saw!"**

Bi-Directional Learning (student-teacher, teacher-student): "I saw quickly that I was the one who was going to be learning from the older adults. They may not have had an iPad before but they had an entire lifetime of experience."

"They've lived all walks of life but I'm their teacher who's still learning. I have a student who travels and she learned how to save photos to iCloud. Now she shows me her pictures and **I am learning from her."**

"It was much richer than I thought it would be and **they were the teachers in many ways."**

"What I saw in the elders made me reflect on my own life. **My life has changed for the better, like 1000%."**

Reflection and Looking Ahead: Recommendations from staff for future programming included increasing program offerings and courses; leaning into group classes for the social interaction component addressing loneliness; and establishing relationships with building management early on to help with program uptake at locations.

Increasing Program Offerings and Courses

"There's always room for improvement but it would only be in the distribution. I think when we were first offering, we needed a good relationship with the building itself, a good established relationship so that people can see you and see your program working."

"I would like it to be accessible to everyone, to more people, I would like to make it accessible to more people. There's a lot of people out there and this would change everything for a lot of people."

"I hope that we can have sustainability, to have more classes and more iPads for more seniors to have access to their communities."

"Everything is digital, even the bank, and everyone should learn the basics of technology so they can do stuff online. I think it's very possible. It takes a lot of patience and the right people, and then the program will proceed. People who are 85 or 90 years old know how to use technology and it's amazing."

Leaning Into Group Classes for the Social Interaction Component Addressing Loneliness

"I also think the group classes had a social advantage over the one-on-one classes, but there were Covid restrictions to consider."

"We started off with individual training so I would say lean toward group classes, especially if part of the goal is to reduce loneliness. Definitely it motivates students more and it's more comfortable to be in their environment and sense of community."

"I gave my last group **an assignment, I had them take pictures and then send it to each other, just beautiful pictures. Go to the most beautiful place in SD and take a portrait horizontal photo and take a photo of the most beautiful place.** One student went all the way to Balboa Park, to a Japanese pond, some went to the beach. **It got the students out and interacting with photos and then each other and with me. It kept them more interactive."**

> **I will never forget a story from our program about the lady who couldn't visit her sister who was in the hospital and we were able to help our Tech for Seniors student have a remote iPad final visit with her that she wouldn't have been able to have.**

APPENDIX A

Comparison Group Demographics

% (n)	Race/Ethnicity (n=33)				
	Hispanic/Latino	Caucasian/White	Asian/Pacific Islander	Native American	Other
	64% (21)	18% (6)	6% (2)	6% (2)	6% (2)

% (n)	Age (n=32)			
	60-69	70-79	80-89	>90
	19% (6)	38% (12)	34% (11)	9% (3)

% (n)	Gender (n=33)	
	Male	Female
	21% (7)	79% (26)

Comparison Group Pre- and Post-Mobile Device Proficiency Questionnaire (MDPQ) Scores

Scale	Baseline			Follow-Up		
	N*	M	SD	N*	M	SD
MDPQ**	18	18.8	8.7	15	19.9	10.1
Mobile Device Basics	30	3.2	1.4	23	3.1	1.4
Communication	21	2.5	1.4	15	2.4	1.5
Data and File Storage	35	1.8	1.0	22	2.0	1.3
Internet	32	2.4	1.3	20	2.4	1.5
Calendar	35	1.9	1.2	23	2.1	1.5
Entertainment	32	2.5	1.1	21	2.2	1.4
Privacy	34	2.2	1.3	23	2.1	1.4
Troubleshooting and Software Management	33	2.3	1.3	22	1.9	1.3

*n varies due to assessments with one or more missing items.
**MDPQ = Mobile Device Proficiency Questionnaire