

Recruiting Older Adults in the Wild: Reflections on Challenges and Lessons Learned from Research Experience

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ABSTRACT

It is important to understand the older adults prior to the design process. The understanding can better facilitate design conversations between the researchers and the older adults. In this paper, we discussed our experiences of building a relationship with the older adults in a local senior center. However, we encountered challenges when we tried to engaging the older adults, for example, skepticism towards the research purposes, reluctance to talk, and the difficulty of collecting data under a fun and leisure environment. We learned that creating relationships is important to engage older adults in research. Engaging the older adults in interactive dynamics could facilitate richer conversations with the older adults. Based on our lessons from interacting with the older adults, we propose that building long-term relationships and engaging older adults in fun research and design activities can facilitate a more successful participatory design.

CCS CONCEPTS

• **Human-centered computing** → **Field studies**; *HCI design and evaluation methods*;

KEYWORDS

Health; older adults; participatory design;

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1 INTRODUCTION

Engaging older adults in the design process (i.e., participatory design) is commonly recognized as a successful way for developing technology suitable for those users. Following the active and positive aging approach, recent research proposed that engaging older

adults prior to the design process could enhance the planning, execution, and outcomes of design research [1]. In this approach, researchers and older adults can collaboratively shape the research and design agenda. Older adults can be considered as researchers, defining, leading, and contributing to the design research [1].

In this paper, we reported our experiences of engaging older adults in the research and design process through building a partnership with a local senior center. We first discussed our process of building the partnership, with highlighted strategies and challenges. Then, we reflected based on our experiences and propose opportunities to engage older adults in the research and design process. Finally, we discuss how to engage older adults in participatory design activities based on what we have learned.

2 STRATEGIES AND CHALLENGES OF ENGAGING OLDER ADULTS THROUGH PARTNERSHIP

Since September 2017, we have been visiting a local senior center located in Central Pennsylvania weekly. Each visit lasted from one hour and a half to two hours. In each visit, at least two researchers interacted with the older adults. Our goal was to engage the older adults in the research process, shaping better and more successful participatory design activities to older adults' interests, needs, and concerns.

2.1 First Step: Engaging Older Adults in Conversations

Our first step to build the partnership with the senior center was to engage older adults in regular conversations. We tried to "break the ice" and build a relationship with the older adults. During our visits, we encountered many older adults (more than 20) from diverse backgrounds and with varying degrees of familiarity with technology. Some older adults seemed open to talk about their personal experiences with our research group.

Those regular conversations varied from the older adults' activities at the center to their family and health issues. For example, Mary and Dorothy (pseudonym) told us that visiting to a nearby town and groceries shopping were their favorite activities, which were organized by the senior center. Helen (pseudonym) treated the senior center as her second home since her husband passed away; engaging in the art classes and social events made her feel less lonely. There were a group of older adults who all survived from cancer. They shared many stories related to their struggles and fights of cancer.

2.1.1 First Step: Challenges. However, not everyone in the senior center was open to conversations with us. We observed that

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some older adults were rather quiet and engaged themselves in individual activities. Some older adults seemed skeptical with our group presence. They mentioned that they were tired of receiving researchers visiting because they felt being treated as the subjects of an experiment. For example, some researchers came to get the information they needed and never came back.

Given the past experiences with other research groups, some older adults were reluctant to talk to us. In order to reach and engage a broader audiences in our research and design process, we came up some strategies to break the ice with those older adults. In the following sections, we discussed two strategies to better engage the older adults. One is participating in the leisure activities with older adults. The other is engaging older adults in workshops to understand their needs.

2.2 Refined Strategies: Playing Games and Offering Workshops

We noticed that the majority of older adults came to the senior center to socialize and entertain. We thought that it would be a nice strategy to participate in the leisure activities organized by the senior center. As a result, we started to play board games (e.g., Rummikub) with older adults at the center. The older adults seemed excited to have us playing the games with them. Eventually, they started to talk more and invited us to do leisure activities with them. Gradually, we learned that the Rummikub game group was created as a suggestion from the participants to the center staff. Upon the request, the staff decided to include it at the monthly calendar. The older adults presented a feeling of ownership on the game time because they took initiative to create the group and now, it was officially on the center monthly calendar.

Another strategy was to offer workshops at the senior center to help older adults familiarize themselves with technology. For example, the older adults expressed that they wanted to learn about how to share photos using their smartphone. So, we led a workshop on photo-sharing via iCloud. Another workshop demonstrated how to navigate Facebook, specifically privacy settings. Those two workshops were well-received by the older adults. It turned out that the older adults at the senior center were willing to interact with us more and asked us more questions.

2.2.1 Refined Strategy: Challenges. Despite our success of breaking the ice with more older adults, we also observed some other challenges from those strategies. For example, some older adults were very engaged in the games, e.g., consistently thought about strategies to play the game. It was difficult for us to probe them to discuss some research topics.

For the workshops, it was challenging to foster normal conversations with the older adults as they were busy focusing on the workshop topics. Most of the workshop conversations were targeted on specific technology-related issues rather than rich conversations to generate insights for follow-up design research. Another challenge was that the workshops rarely went to plan. For example, we overestimated older adults' ability to quickly learn technology. Some were fast and some were not. And they preferred one-to-one counseling. If the technology, such as the projector or WiFi, was experiencing a unexpected failure, the staff at the senior center and older adults would rely on us to fix the technology. For example, we

helped to mount the projector on the ceiling and troubleshoot the projecting screen. In addition, we learned that some older adults needed some supports such as printed manuals with a larger font, visual elements for better understanding of the presentation, and the repetition of the content.

3 REFLECTIONS ON ENGAGING OLDER ADULTS

Based on our initial interactions with the older adults, we learned that it was important to build trust and interpersonal relationship with them, particularly with those with prior research experience. This is a challenging process, which requires researchers' long-term commitment.

We noticed that creating relationship and trust ties were important to engage them in research activities. However, we had to find new approaches to engage with this group of participants since some traditional methods of data collection may not be effective. Due the participants skeptical behaviors, alternatively we decided to rely on observations and notes from our weekly visits as a way to collect data. We would bring notebooks and write down quotes and stories shared during our informal conversations and game time. Obviously, before taking any notes, consent would be requested and because this method of data collection was less academic, participants were more at ease with the overall research experience. Thus, our research visits had a more informal setting to collect data which turned out to be effective to enroll this group of individuals in a research study. We observed by using this new approach participants felt less as subjects in a experiment, and more as collaborators and partners in a project.

Our experiences of playing games and offering workshops to older adults demonstrated a success in building common ground and fostering trust. Older adults felt more at ease with the overall experience while interacting with us through games and workshops. Understanding older adults by engaging them in activities that they are interested in brought us richer insights into their life experiences and stories. However, this familiarity made it difficult to capture the experience in-situ.

We also learned that the aging process can interfere considerably in the research experience. We should be flexible to adapt existing research methodologies to attend older adults' needs. For example, we observed that the use of large font-sizes and images are essential to facilitate communication with older adults during presentations and design activities. Also, we realized that we should avoid using technological jargon or academic expressions in regular conversations or workshop presentations because this older population are not often immersed in academic settings or even familiar with technology trends.

Furthermore, we need to prepare ourselves for unexpected situations. For example, we noticed that most of the older adult participants were not familiar with Facebook terms as mentioned. We then did not follow our original plan but explained terminology first. In another workshop, we had to repeat the projector before we could give our workshop. In yet another case, the projector refused to work, so we demonstrated how to use Facebook on each participants' smartphone.

4 MOVING FORWARD TO PARTICIPATORY DESIGN ACTIVITIES

Our next step is to engage the older adults in the participatory design activities. Based on what we learned from constructing a relationship with the older adults, we expect it could be a long process. One or two design workshops with older adults may not generate rich conversations and insights on the design. We propose two strategies for engaging the older adults in participatory design activities, research games and interactive workshops.

4.1 Research Games

Based on our experience of interacting with older adults, it is easier for them to talk to us in an informal setting, e.g., games. Not only did we find out that we could generate richer conversations with the older adults while we were playing with them, we also observed that older adults were engaged in playing casual games. We believe that conducting participatory design in a fun and casual gaming environment can lead to a better success in engaging the older adults in the research activities.

We propose designing different participatory design card games to create a fun environment to engage the older adults in the research activities. For example, we are currently designing a card game (see Figure 1) for our participatory design activities. In this game, each player (including the researchers and older adults) are required to choose a card and perform the research activity listed on the card. The more challenging an activity to be, the most points the performance can earn. For example, if an older adult picks an action card and successfully perform the activity “describe the design to your friend”, he or she can receive five points. We will provide the design to the older adult.

Instead of asking how they think about the design by directly showing the design to them, we use the card game to encourage the older adults to think aloud their reactions and interpretations of the design. The game also facilitates a casual environment. We hope to create richer conversations by using the research game and prevent the older adults from feeling of being experimented.

4.2 Interactive Workshops

Based on our experience of offering the workshops, we noticed that older adults were engaged in the technology topics to their interests. However, some challenges that we have encountered were 1) the workshop were not executed as we planned, 2) instead of giving a workshop to a number of audience, older adults preferred and needed personal assistance, and 3) our terminology did not match older adults’ terminology and we lacked a common ground to discuss about technology.

Moving forward, we propose interactive workshops as a form of participatory design activities to engage the older adults and make the communication smoother. The interactive workshops will be fun, engaging, and has a less structured procedure. For example, we plan to use visual artifacts (e.g., photos, cards), tangible objects (e.g., photo frames, CD cover), and design supplies (e.g., post-it, markers, paper). All those materials will be used as a way to engage older adults in creative design. Moreover, we will encourage older adults to think aloud in the workshops and participate in design discussions. We also plan to propose different scenarios that

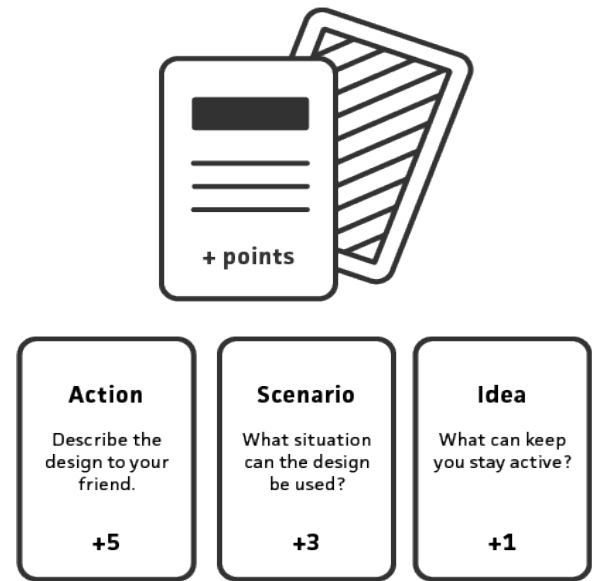


Figure 1: Participatory Card Game

describe a story of an interaction to probe older adults’ thoughts to those scenarios and technology design. For example, we developed a scenario based on one of the conversations with an older adult called Molly (pseudonym) who told us that she has an artistic side and likes to use photos to express her art. Molly also said she creates cards and calendars with her pictures and she gives them away as a gift. We, then, present here the scenario about photos:

Scenario: Share photos as Art

“Beatrice and her husband are retired and live in Rochester, NY; while their daughter lives in Boston. Beatrice always had an artistic side, when her daughter was growing up she would take pictures and try to frame it correctly, and make it pretty. Beatrice loves to take pictures of buildings and nice vignettes in the park. She has used her pictures to create cards such as greetings and birthday cards, and she has shared them within her family. She also has framed her own pictures to decorate her house.

Last Summer, Beatrice and her daughter went to Rochester Lilac Festival at Highland Park. The park was so beautiful that she decided to photo-document the experience. Beatrice was so pleased with her pictures that she used them to create a small book with the photographs. Beatrice also made a birthday card to her daughter using the pictures she took at the park. On her daughter birthday, she gave her the card and the small book as a birthday gift.”

As we present the scenario, we will include visual representations of photos as art (e.g., cards, calendars) (see Figure 2). After presenting the scenario, we will ask questions to initiate the design discussions. Some examples of questions are:

- Can you relate with this situation?
- Have you ever done anything like this?
- Do you think the use of technology could better support Beatrice in her photo sharing practices?

Share photos as Art

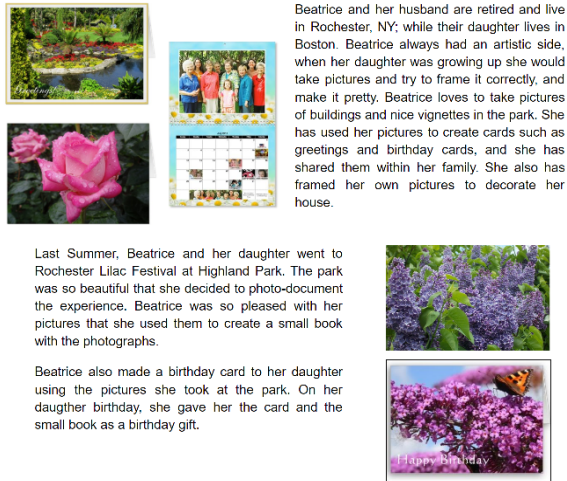


Figure 2: Scenario for Design Activity

During our interactive workshops, we may also incorporate some activity breaks to create a relaxing and active environment, e.g., asking them to move around. We also treat the interactive workshops as a test bed for some technological interactions. For example, we may ask the older adults to take a photo and send the photo with his or her neighbor at the workshop.

4.3 Other Design Considerations

Besides, we will take into consideration that the design activities may not be executed as planned and we need to be prepared for unexpected situations. For example, we will use the language that the older adults are familiar and explain necessary terminology before we start.

We also understand the need to maintain the partnership with the senior center to foster sustainable research and design activities.

5 CONCLUSION

In this paper, we reported our experiences and lessons learned while engaging older adults in research. We described our research process, strategies, and challenges through building a partnership with a local senior center. As we encountered challenges, we decided to refine our initial ideas and put into use different strategies. Finally, we present reflections of the overall experience and next steps of the participatory design activities. We envision that our project would be a long-term fun and engaging participatory design, such as research games and interactive workshops.

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