Motivation and Research Questions

- Older adults (OAs) are using feature-rich software more frequently [1].
- Exploratory learning is popular but challenging [2].
- Social support has been promising in IT [3].
- How do OAs experience collaborative learning while exploring feature-rich software?
- What type of interaction patterns emerge between learning partners?
- Are there any differences between mixed-age and same-age pairs’ interaction patterns?

Methodology and Data Collection

- 16 OAs and 6 younger participants worked remotely in 5 same-age and 6 mixed-age dyads to explore Gather.Town [4] mapmaker.
- First session (1 hr): Introduced participants to the virtual environment and software concepts.
- Second session (2 hrs): Worked on 3 sets of design tasks. e.g., replicating virtual room below.
- Pre-study questionnaire: background such as level of education and technology use.
- Screen recording: interaction with each other and with the application.
- Post-study questionnaire and interview: perception about partner and experience.

Findings

Collaboration Dynamics and Task Performance

<table>
<thead>
<tr>
<th>Equal Collaboration</th>
<th>On Demand Assistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dominant-Follower</td>
<td>Individual Exploration</td>
</tr>
<tr>
<td>Task success</td>
<td></td>
</tr>
</tbody>
</table>

Impact of Interaction on OA and Participants’ Perception

<table>
<thead>
<tr>
<th>Partner</th>
<th>Advantage</th>
<th>Disadvantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>OA</td>
<td>OA appreciated having similar limitation</td>
<td>OA got frustrated when the partner was struggling</td>
</tr>
<tr>
<td>Partner</td>
<td>A more knowledgeable partner for OA</td>
<td>Fear of being a burden or not keeping up</td>
</tr>
</tbody>
</table>

Complex Tasks Assessment

- Spatial navigation (5/16 OAs had issues with moving their avatar)
- Lack of trust and openness
- Use of analogies
- Lack of initial ability to explore the software

Future Research

- Measuring the effectiveness of collaboration beyond individual task success.
- Allowing participants to practice simpler tasks over time before attempting to do harder design tasks.
- Different types of software and learning scenarios.

References

4. Image has been designed using images from Flaticon.com.
Feature-Rich Software Exploration: Older Adults’ Collaborative Learning Dynamics

Motivation and Research Questions

- Older adults (OAs) are using feature-rich software more frequently [1].
- Exploratory learning is popular but challenging [2].
- Social support has been promising in IT [3].
- How do OAs experience collaborative learning while exploring feature-rich software?
- What type of interaction patterns emerge between learning partners?
- Are there any differences between mixed-age and same-age pairs’ interaction patterns?

Methodology and Data Collection

- 16 OAs and 6 younger participants worked remotely in 5 same-age and 6 mixed-age dyads to explore Gather.Town [4] mapmaker.
- First session (1 hr): Introduced participants to the virtual environment and software concepts.
- Second session (2 hrs): Worked on 3 sets of design tasks. e.g., replicating virtual room below.
- Pre-study questionnaire: background such as level of education and technology use.
- Screen recording: interaction with each other and with the application.
- Post- study questionnaire and interview: perception about partner and experience.

Findings

Collaboration Dynamics and Task Performance

Equal Collaboration

On Demand Assistant

Dominant-Follower

Individual Exploration

Task success:

Impact of Interaction on OA and Participants’ Perception

- Lack of trust and openness
- Use of language
- Negative Cycle
- Lack of initial ability to explore the software

Complex Tasks Assessment

I have never played computer games at all, so I was pretty unaware of couple of things. So, I depended on [my partner] a lot.

Complex Tasks Assessment

- Spatial navigation (5/16 OAs had issues with moving their avatar)
- Lack of initial ability to explore the software

Complex Tasks Assessment

- Lack of knowledge transfer from similar software

Findings

References

4. This poster has been designed using images from Flaticon.com.