

Reconnecting people with dementia by using the interactive instrument CRDL

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Research

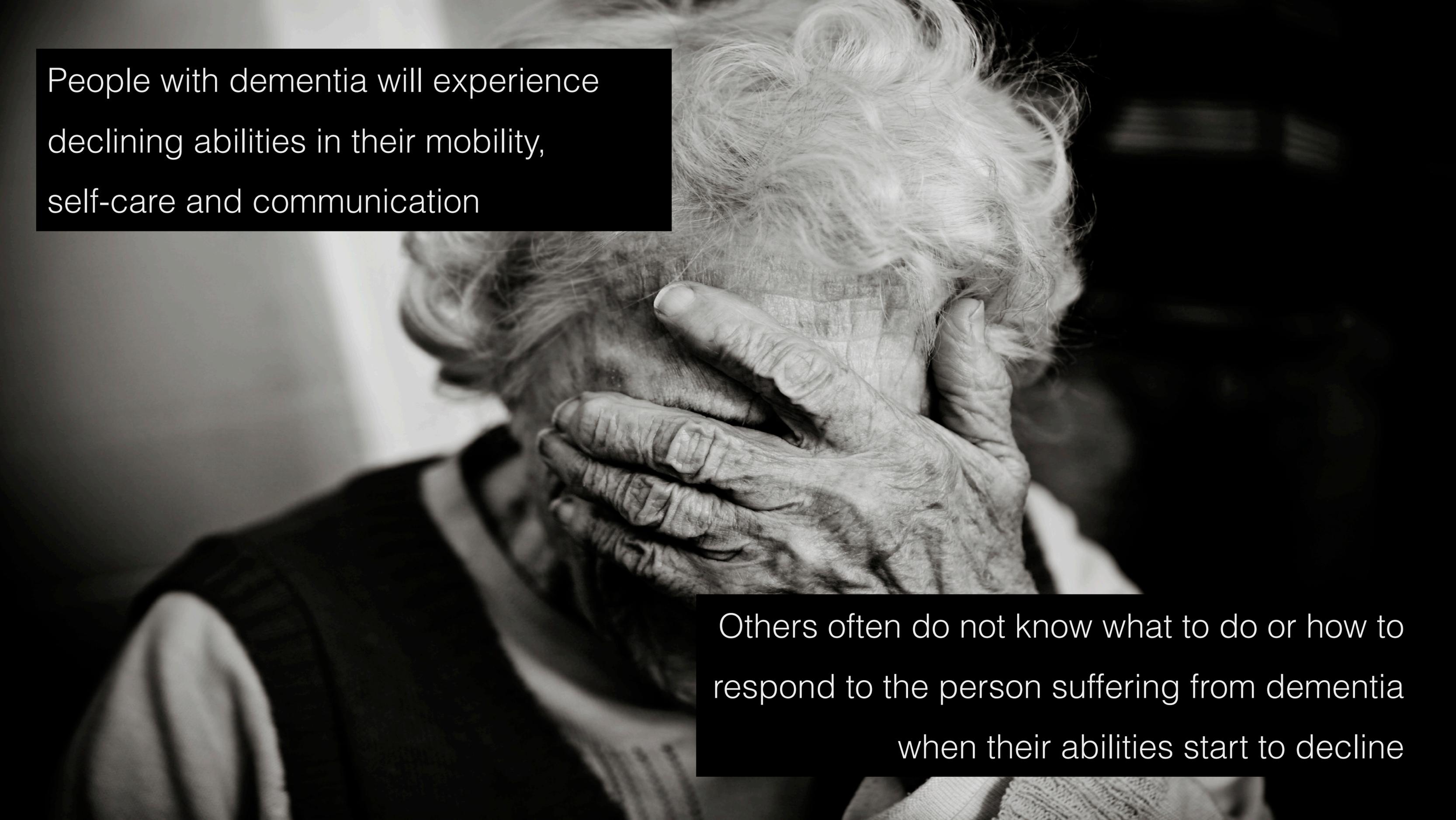
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People with dementia will experience declining abilities in their mobility, self-care and communication

Others often do not know what to do or how to respond to the person suffering from dementia when their abilities start to decline

CRDL is an interactive instrument,
developed to stimulate communication
between users through sound and touch

It is able to translate touches between
people into sounds. The idea is that
people can 'play each other' like an
instrument



CRDL



tapping



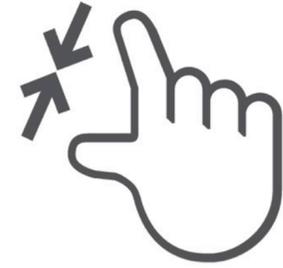
holding



fondling



knocking



kneading

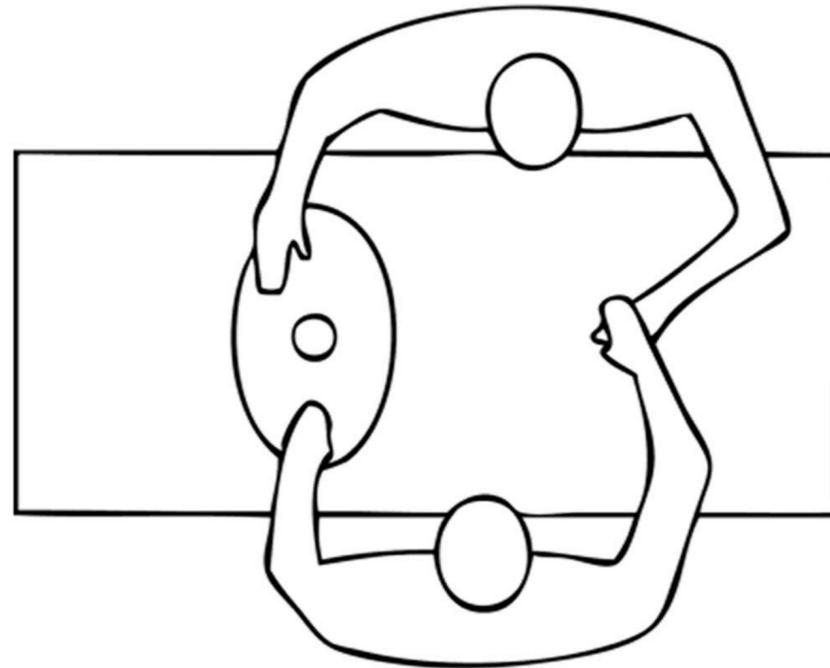
- This **qualitative observational study** explores whether this innovative product has the potential to be used in elderly care to **create a moment of interaction** between the person with dementia and someone else or multiple others.
- The **aim** of this qualitative study is **to explore what happens** during a session with CRDL and to report how people **experience** the interaction with CRDL and the person(s) with dementia.

Methods

Two settings of interaction have been studied

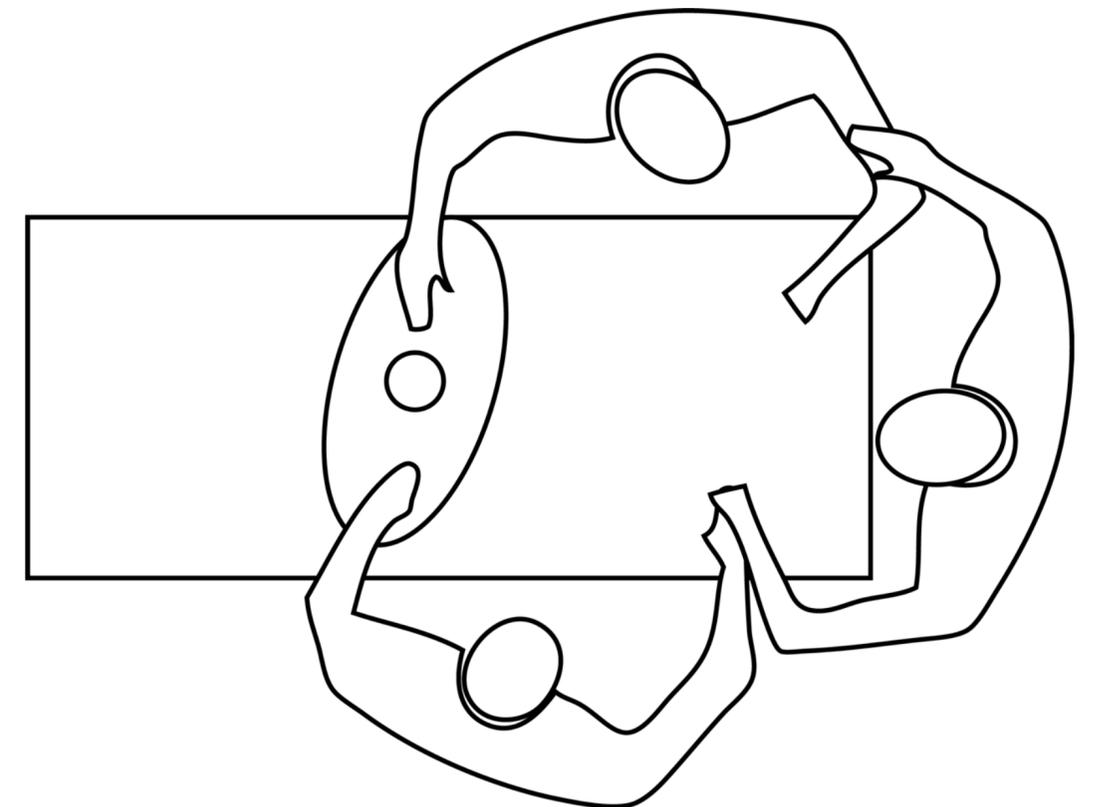
one-to-one interaction (7 sessions)

with a resident and a healthcare professional,
recreational therapist or family member



group interaction (5 sessions)

with a minimum of 3 residents and one healthcare
professional or recreational therapist.



Methods

- The sessions were recorded by video camera and voice recorder
- Semi-structured exit interviews took place to receive the first impressions of the healthcare professional, recreational therapist or family member.
- A video-cued recall took place with one researcher and the recreational therapist or healthcare professional who guided the group session.

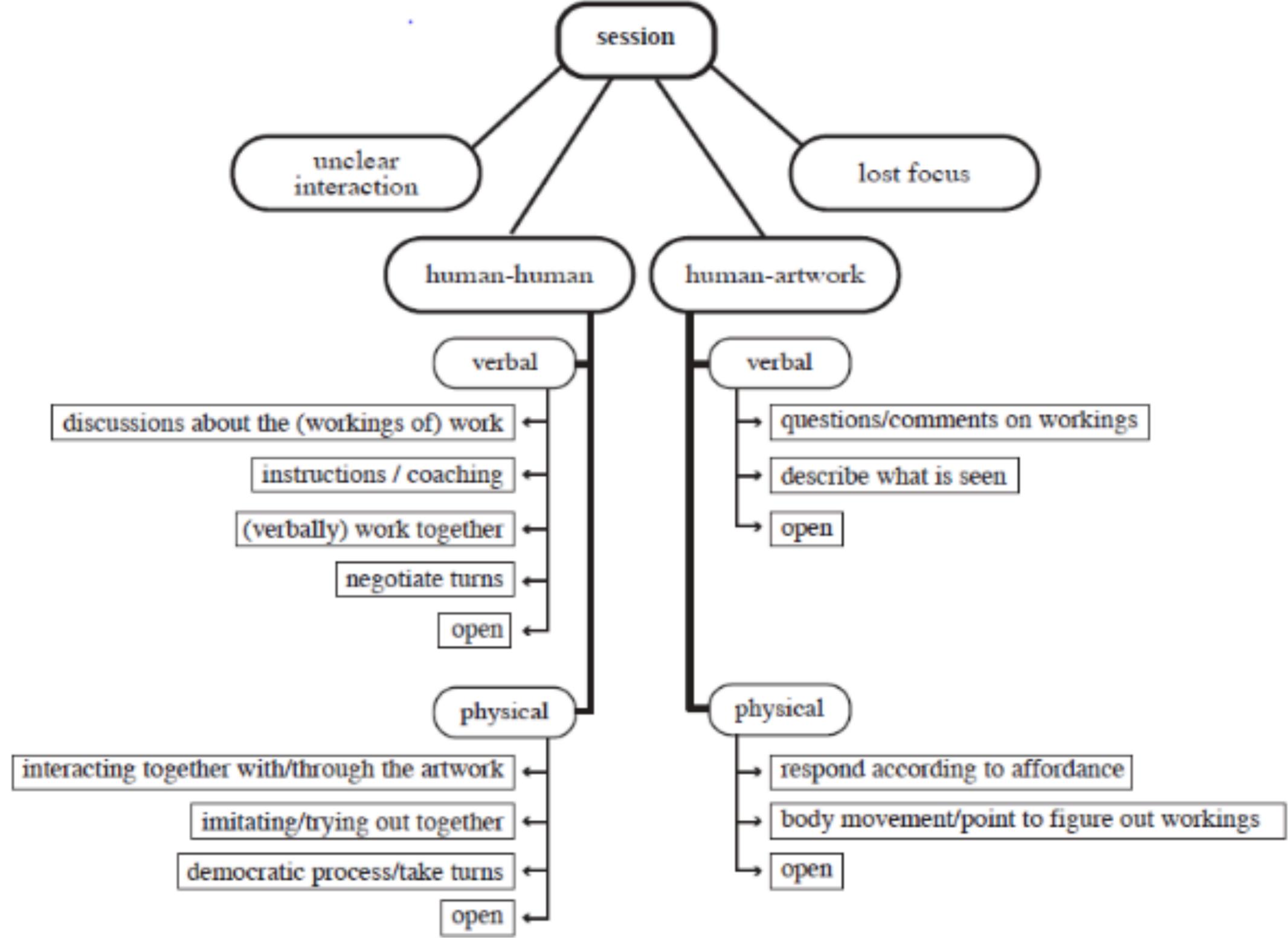
One-to-one interaction

Professionals and family members reported that it was a **pleasant experience**

They also mentioned that it felt **familiar** and they had the feeling that they **were in better contact** with the person with dementia

Quote: 'She is telling a lot more than usual, it is still incoherent, but she told me many memories of the past'

Group interaction: data analysis



Group interaction

- Participants were generally fascinated by the object itself, but needed active encouragement to interact.
- Difficult to engage the group as a whole, because of individual differences in preference, stage of dementia and physical limitations.
- Easier to encourage the residents to engage in the group interaction the second time and therefore there seems to be a learning curve and this implicates that skills may improve by practice over time.

Discussion

- It seems that CRDL has the potential to encourage the interaction between the healthcare professional, recreational therapist or family member and the person with dementia in the one-to-one interaction
- It is important that the other actively encourages the person(s) with dementia to engage in the interaction with CRDL. This seems to be especially difficult in group interaction.

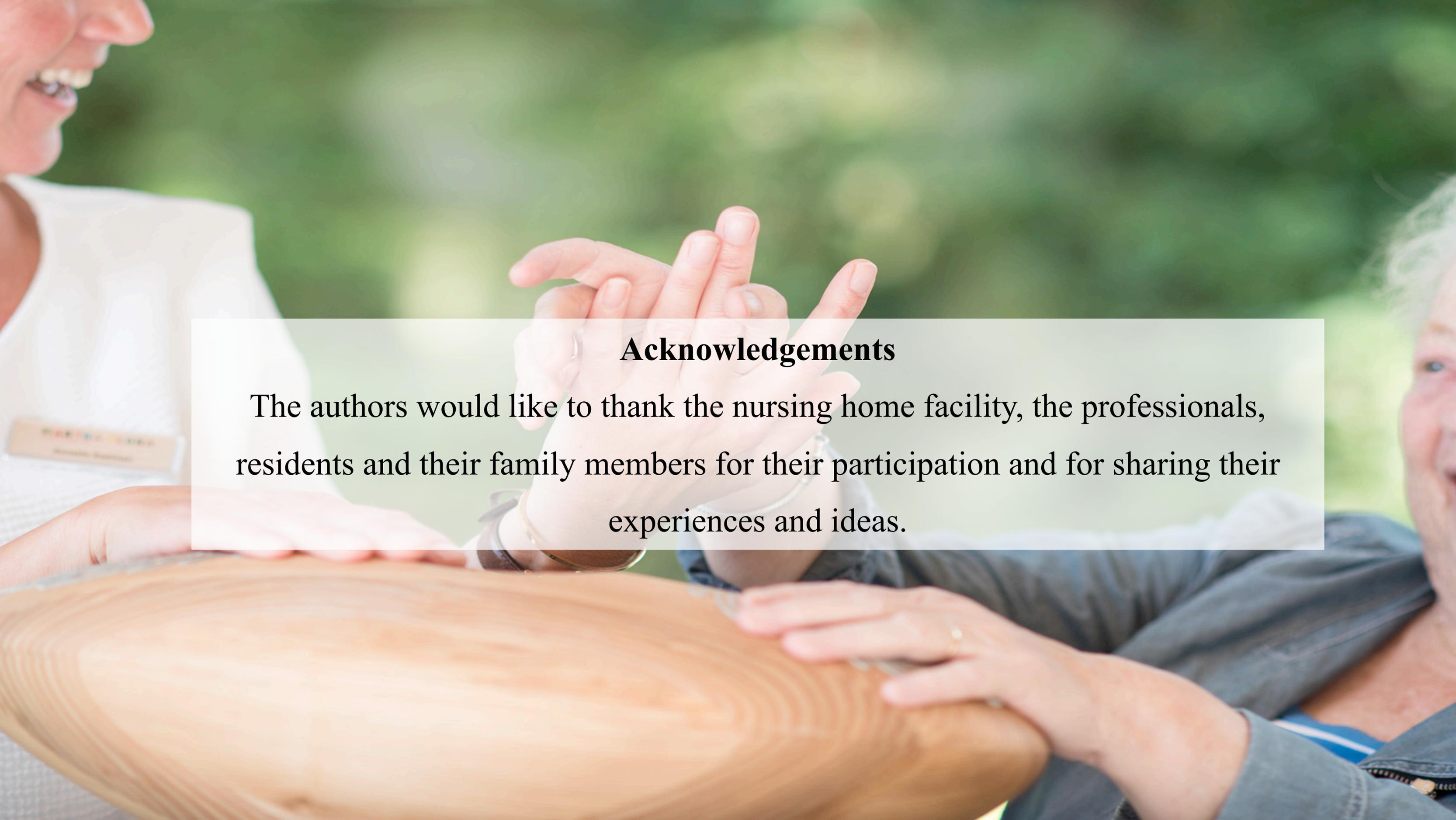
Recommendations

For further research:

- It is expected to be more effectively in people with **severe dementia**, especially in people where language-based communication is no longer possible.

For the developers:

- It should be possible to install **individual soundscapes** to tailor the sounds to each individual. → *This has already been changed and is now possible*
- The **opening** of the panel should be **enlarged** so CRDL could be operated more easily.

A photograph of a smiling woman in a white lab coat holding a large wooden bowl. Another person's hands are visible in the foreground, resting on the bowl. The background is a blurred green outdoor setting.

Acknowledgements

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Any questions?

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