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Older adults' attitudes towards immersive Virtual Reality (VR) - A Thematic Analysis



Rationale

- In the last decade, immersive virtual reality (VR) has gained more interest and acceptance, as an innovative technology intervention in a range of health settings for older adults, including possibilities of improving mood, memory, cognition and wellbeing.
- Therefore, this study was based on the premise that understanding older adults' attitudes towards accepting VR is fundamental for maximising the potential that this emerging technology could offer, in delivering improved wellbeing outcomes for older adults.



Aim & Approach

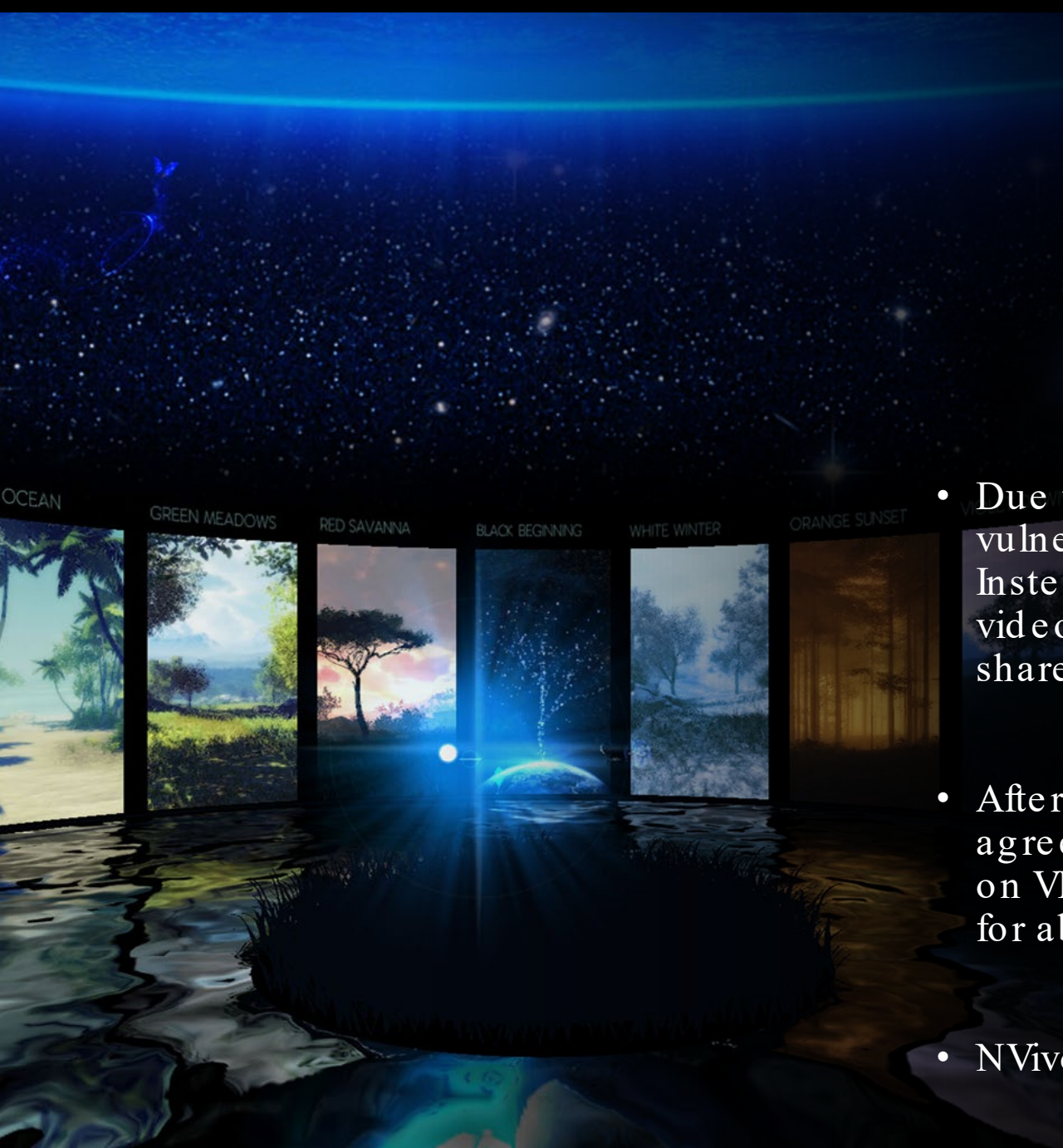
- To identify and examine the factors which could both positively and negatively influence the attitudes of older adults' towards immersive Virtual Reality (VR) and how those factors consequently contribute towards improving their wellbeing and quality of life.
- The person- environment (P-E) lens of environmental gerontology was used to frame the interview questions and interpret the findings to explore if VR could meet the needs of the older adults and could it potentially improve their wellbeing?
- To find whether VR in ways could meet the environmental functions of maintenance (constancy and predictability), stimulation (novel array of stimuli) and support (compensate for reduced or lost competencies) which forms the basis for harmony essential for human living.



Participant Recruitment

- Older adults (male and female) in the age group of 60 years and above, were recruited from Lancaster University's Centre for Ageing Research (C4AR) volunteer panel, and a senior forum called Lancaster Friendship Centre.
- 13 older adults in the age group of 62 to 88 years of age participated in this study.

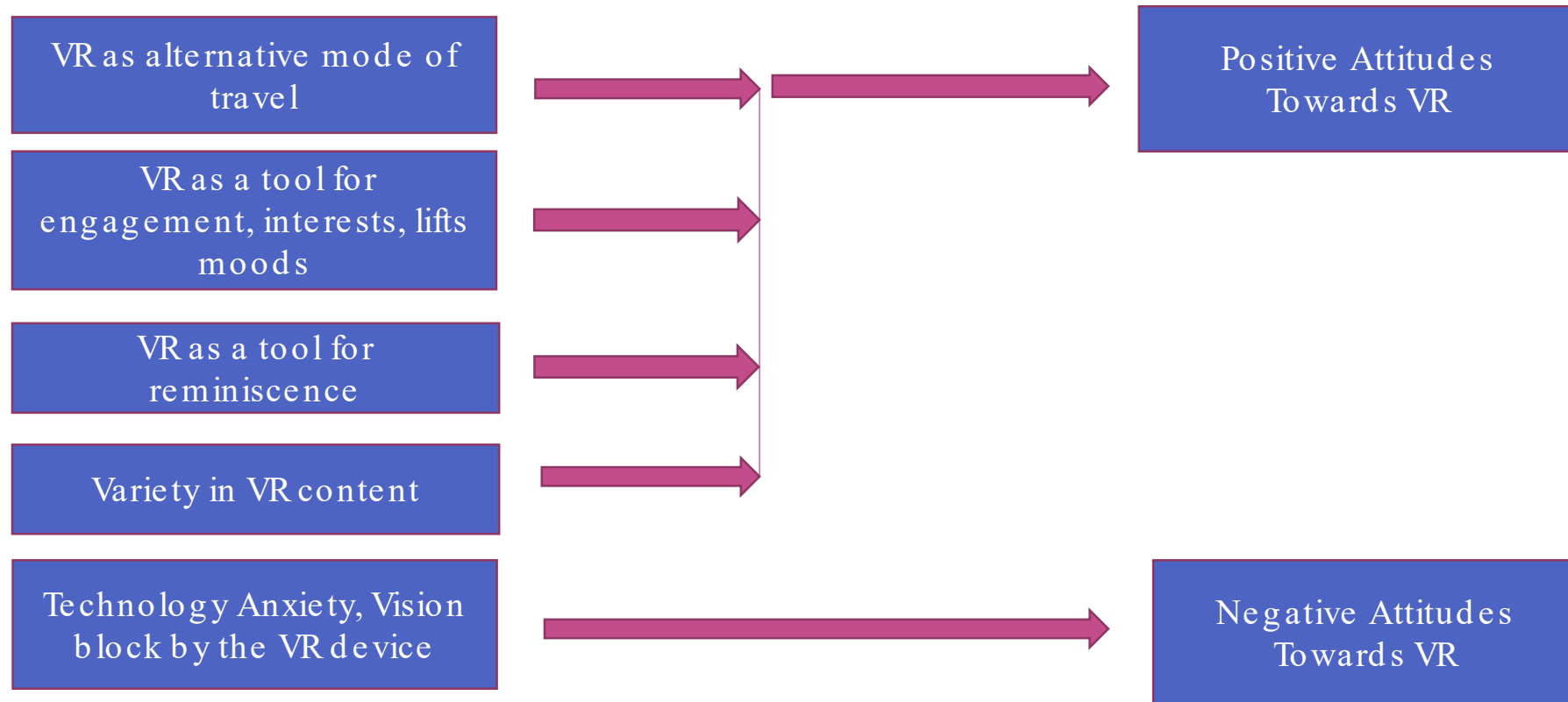
Methods



- Due to the Covid lockdown, the older adults being a vulnerable group could not be exposed to VR experience. Instead, the researcher produced an introductory demo video on immersive VR and a private link to that video was shared with the participants.
- After the participants' viewing of the video, on a mutually agreed date and a time, there was a telephone Q&A session on VR, followed by in-depth interviews with the participants for about 45-60 mins each.
- NVivo was used for the thematic analysis of data.

Findings

Factors / Themes which contributed to the positive and negative attitudes of older adults towards VR





Quotes

VR as alternative mode of travel

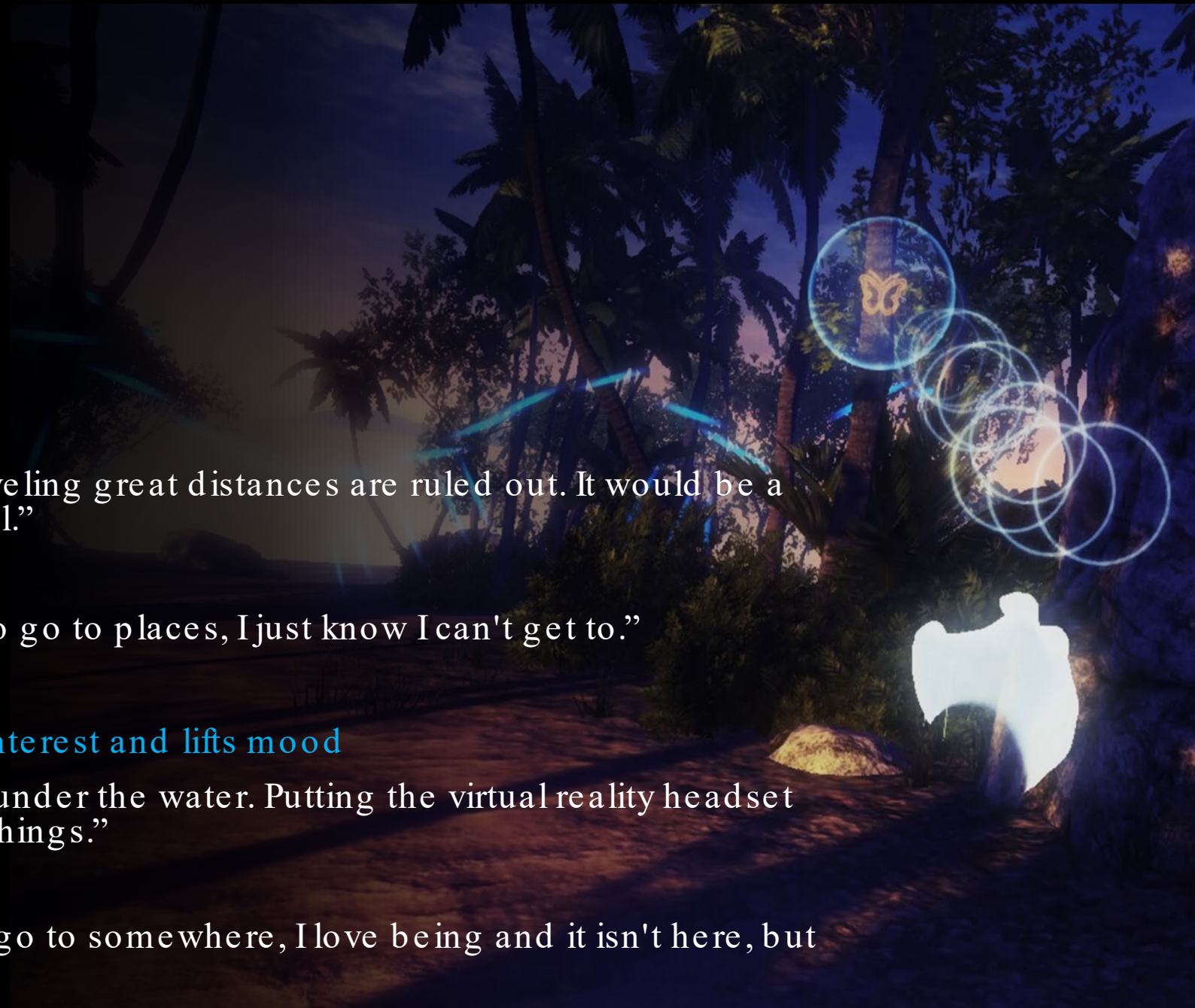
“Well, now that I've reached the age, traveling great distances are ruled out. It would be a good advantage to do some virtual travel.”

“Even while I'm able to travel, it's good to go to places, I just know I can't get to.”

VR as a tool for engagement, provides interest and lifts mood

“I would absolutely be fascinated to go under the water. Putting the virtual reality headset on to look at coral reefs and all sorts of things.”

“I think VR would lift my mood, if I could go to somewhere, I love being and it isn't here, but in some distant land, I could go.”





Quotes

VR as a tool for reminiscence

“Flight of fantasy about my past. We don't know the future; we do know the past. And to go backwards for me in VR, it will be wonderful.”

“Yes, it is wonderful to share the VR experience and take a google map hike with my granddaughter.”

Variety in VR content

“I would rather be in a submarine in VR, than play bingo.”

“I would love to play multi-player games inside the VR environment.”

“I would like to go to an escape room in VR.”

Quotes

Vision blocked by VR & Technology Anxiety

“I don’t want to use VR, because it would block my reality.”

“It takes me ages to get used to a new technology, I get very anxious and nervous about anything new.”





Limitations

- Due to the Covid lockdown, the older adults being a vulnerable group could not be exposed to VR experiences.
- The goal was to keep the sample diverse, but only those who volunteered to participate were recruited, so there is a sampling bias.

Discussion

- Factors (themes) such as VR as an alternative mode of travel, VR as a tool for engagement, provides interest and lift moods, VR as a tool for reminiscence, and variety in VR content played a fundamental role in contributing to older adults' positive attitudes towards VR.
- VR as an alternative new mode of travel and as a tool to provide engagement, interest, lifts mood also variety in VR content in ways meet one of Lawton's (1989) basic functions of an environment in terms of stimulation by providing novel array of new stimuli, which could have a positive impact on older adults' wellbeing.
- VR as a tool of reminiscence in some ways meet the environmental function of support. For example, any place that had a personal meaning for older adults, when viewed through a VR device could trigger a sense of nostalgia. Although VR cannot replace reality, it still could serve the environmental function of support by compensating for reduced or lost competencies of the real environment.

Exploring the impact of immersive VR on older adults' wellbeing

What is the study about?

- This study explores whether Virtual Reality (VR) could make a difference in potentially improving the wellbeing of older adults in their home environment.
- The study also aims to understand whether people create new place meanings and feelings of attachment to places in a virtual world just as they might in the real world, and whether this is one way that wellbeing is affected positively.
- Volunteers will take part in VR experiences for a period of 5 days (Monday to Friday) at their homes with the help of the researcher.



Exploring the impact of immersive VR on older adults' wellbeing

Methods

- In this feasibility study a crossover design with mixed methods approach will be used to adequately expose the older adults to immersive VR experiences at their homes.
- Wellbeing will be measured pre and post exposure to immersive VR using the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS).
- Focus group method will be used to examine whether older adults are making any place meanings or place attachments within the VR world which could potentially lead to their improved wellbeing.



Thank you!

