## Data attached to Work Package 4 of the Designing for Healthy Cognitive Ageing (DesHCA) Project

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## Data Archive Link and Reference

McCall, V; Rutherford, A (2024): Serious game data archive for the Designing for Healthy Cognitive Ageing (DesHCA) Project. Version 1. University of Stirling, Faculty of Social Sciences. Dataset. http://hdl.handle.net/11667/227

## Background

The Designing for Healthy Cognitive Ageing (DesHCA) aimed to test, understand, and identify facilitators and barriers for various stakeholders, including older people, in achieving cognitively sustainable housing, in both new-build and retrofit contexts.

The DesHCA project has developed a co-produced legacy tool called ‘Our House’ as part of its Work-Package 4, led by Professors McCall and Rutherford. The archived data attached to this work-package has been generated from 10 playtests of the serious game legacy tool that was developed. Our House is a serious game that was developed to generate research insights on how to deliver housing for older people that is cognitively sustainable and inclusive.

## Overview

These are the first set of notes (1 of 2) from playtest session 1, which took place on the 2nd of February 2023. The playtest comprised of 9 participants.

These notes have been fully anonymised, with all identifiable characteristics, including the participants’ names, removed, or replaced with pseudonyms.

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| **Time** | **Note** | **Quote** | **Personal analysis** |
| 10:28 | Dr McCall begins the game. Participants 5.1 and 5.2 focus on their budget constraints whilst building their initial home. |  | Early on group 5 highlight that they are budget orientated and hold cost effectiveness-based perspective. |
| 10:30 | Group 4 are excitable and smiling. They celebrate in their more extensive budget. Both are keen to create a mostly accessible home from the offset to prepare their characters for any areas of decline they may experience later. Group 4 have placed their well-being scale at 13 and believe their characters are quite happy in their home. |  | Group 4 appear to prioritise early intervention-based building tactics. They recognise the usefulness of an extensive budget and use the majority amount. |
| 10:32 | 4.2 is debating is the size of rooms costs against the level of accessibility. 4.1 is trying to ensure accessibility is high and pushes for larger rooms despite cost impact.  4.2 suggests potentially moving the structure of the house around, placing different rooms in different areas to help keep the house accessible and reduce costs. |  | There appears to be the beginning of divided prioritises between group 4. 4.1 appears to be focusing on usefulness of the house and how liveable the characters will find it. 4.2 appears to be slightly more focused on a compromise between easy living and maintaining a financial safety net for any future events. |
| 10:34 | Participant 7.2 has built his first house using 4/6 that are labelled as accessibility level difficult or challenging but has chosen to add a small garden despite budgetary constraints. When asked why 7.2 commented they imagined it to be a smaller community garden which could add happiness to the individual's life without the pressure of maintenance.  7.2 has placed their well-being scale at 12 they feel their character is reasonably happily their life at the moment. |  | Participant 7.2 has a very restricted budget. The character currently lives in the town centre so has prioritised smaller rooms with the perception of the individual using the home as a ‘bachelor pad’ and imagines the character would spend more time in the town centre. 7.2’s choice of adding a garden was interesting. It highlighted 7.2’s concern for the characters emotional well-being would be better impacted by having a garden/shared space over slightly larger rooms. |
| 10:36 | 5.2 is seeking the most cost effect room spaces |  | Group 5 continued to be practically and financially orientated there is less focus on the personal side of the making the home suitable for character and primary focus is on creating useful spaces for costs that fit the characters budget. |
| 10:37 | 4.1 is passionate about adding an ensuite to the initial build. Their volume rises as they continue to be more passionate about the usefulness of the room. | *“We are thinking long term… what will be best”* | 4.1 is evidently keen to ensure the characters can stay in their initial home design for as long as possible and as a result is attempting to put in place supportive measures early on. |
| 10:39 | When asked why group 5 chose a kitchen with a challenging adaptability rating 5.1 explained it was purely based on cost. Group 5 highlight that the kitchen is their least prioritised room. Group 5 have chosen to put in a small, sloped garden similar to participant 7.2. |  | Group 5s choice of a kitchen with a challenging adaptability rate over a different room indicates that they may view a larger kitchen as less of a need in comparison to a garden. This may be an indication of a more emotional thought path with gardens being associated with socialising, play areas for children and fresh air. |
| 10:40 | 7.2 also chose to have smaller kitchen and when why they explain like group 5 their budget did not extend to anything bigger. 7.2 also explained that they were okay with the kitchen being smaller because at some point they would like to move. 7.2 explains their character was at one stage about to buy a house by the sea but that had fallen through. It was a priority of 7.2 that their characters could eventually move to a place closer to the water. |  | Despite 7.2s financial limitations they show a determinedness to get their character as close to its original goal of living by the sea as possible. 7.2 highlights emotional well-being as having a significant impact on an individual's life and continues attempting to find sources of happiness for his characters despite their circumstances. |
| 10:43 | Group 5 were asked why they put a garden in place especially one that had limited accessibility as a result of a slope. 5.2 explained that a primary priority was to seek funding from the local authority to lay out decking in the garden that would even out the slope making it more accessible.  Group 5 places their well-being scale as a 10 and described the living situation as reasonably content. |  | Group 5 continued to be practically and financially orientated. When further prompted they explained that they themselves have helped service users out in fitting this type of adaption and believe it to be very useful. So far, the choices from group 5 appear to be reflectively thought out ensuring that anything they invest in is meeting its maximum level of usefulness. Group 5 show a realistic representation to the current processes of home adaptions. |
| 10:45 | Group 4 had resolved their dispute on room size versus location. There appears to have been a compromise and house has been slightly resigned. 4.2 explained they chose to have medium downstairs rooms which were easier to adapt and small bedrooms upstairs. They since explained that because their characters had some physical problems, they wanted to move a bedroom with an ensuite bathroom downstairs so that should one of the individual’s physical abilities decline they could still have a fully accessible house. |  | Group 4s compromise was realistic and showed their consistent attitude of keeping the characters in their homes. The movement of a bedroom with ensuite to downstairs helped change the dynamic of the home and allows for the characters to have more freedom and independence. These are both characteristics group 4 seem concerned about maintaining. |
| 10:46 | Group 4 have chosen to live in Barwick Village. They made this choice because they felt it would be a nicer environment for their characters to stay in. Despite the lack of transport and local amenities group 4 are content with their choice as the characters have access to a car and the ability to drive to the areas they need. |  | Group 4 may have been attempting go for a more comfortable area to live in because it is quieter and more private, but they may not have thought about the potential impact of not having a vehicle or lacking local services like shops and medical centres. |
| 10: 48 | Group 5 have chosen to live in Parkview. This was to maintain their budget and because of its levels of public transport is supporting to their characters. |  | Group 5 were somewhat restricted by their budget as to where they lived but have gone for a mostly neutral area that may allow their characters more freedom in getting around as a result of reasonable transport. |
| 10:52 | After laying down their homes in the map 4.2 approaches group 5 at their desk and begins a conversation about house development plans and accessibility. 5.1 comments that they think houses should have built in accessibility features that would then reduce the strain and financial impact of any future adaptions because the homes would be built for a purpose. 5.2 agrees. 4.1 also agrees and whispers loudly, their volume rises, their eyes go wider in agreement, they also use hand gestures emphasising their point as they comment that if all developments moved their standards to fit a specific level of accessibility, then every home would have the ability to support individuals with physical or cognitive decline. | *“If we changed our standard to include those elements (dementia friendly features) …then every home could be dementia friendly…”* | Group 5 and 4.2 spoke passionately on this subject and to some extent some frustration in tone of voice and response could be seen. They appear to think that inclusive building features should be part of a standard home. Tone of voice and hand gestures indicate they think this is an obvious solution their tone of frustration then may be related to the fact that these procedures are not standard fittings. |
| 10:57 | 4.1 returned to their group. They are reflecting on their home and have decided to prioritise preparing for the future within their budget.  They have kept their one level living option downstairs and have added a garden to their design. 4.2 explained that they thought the garden may be supportive for their characters cognitive health as it would give them something to focus on and provide purpose. 4.2 is considering what may be done in the next round to support the characters cognitive concerns. |  | Group 4 now have a shared sense of determination in making this home the most suitable for the characters to live in. 4.1, assumedly affected by their conversation with group 5, continued to pose potential adaptions they may be able to add on later in the game. 4.1 and 4.2 were smiling and laughing with each-other, excited about helping out their character. |
| 10:59 | Group 5 have chosen to stay under budget so that they can make adaptions later on that would be beneficial to the characters. The choice of kitchen is brought up again and they are prompted to explain their rationality further. 5.2 explained that they chose to fit a smaller kitchen so that they could fit an ensuite bedroom as the main bathroom was on a different floor. |  | Group 5s choices fit with their specialities and fittings that they regularly perform so by building their house in such a way they are likely preparing it for future adaptions they may make which could lower the overall cost and stress experience of the characters. |
| 11:07 | The second round has begun. 5.1 focuses on the challenge scale - they appear in deep thought. |  | Group 5 are quick and responsive to the changes in their characters' lives |
| 11:09 | 5.2 approaches local authority to ask for funding for a decking. This is their first response. They have an immediate plan for practical changes |  | Similarly, to before group 5 are speedy with decision making, likely because they are around these situations regularly and can formulate fast acting plans |
| 11:11 | 4.1 expresses concerned about the accessibility of the garden but does emphasises their enthusiasm at making the bottom floor suitable for one level living. They realise their predominant issue is with the upper floor.  4.2 appears reasonably concerned about the characters cognitive decline and immediately wants memory aids incorporated. She is concerned that the characters cognitive decline will be a source of stress and upset. | *“Because we made the bottom floor more suitable… only really need to sort the top floor”* | Group 4s tactics in their initial build have mostly payed off. Their responses to the life change have highlighted their priorities. 4.1 is heavily focused on physical accessibility so the characters can still feel free in their home and 4.2 is more concerned about the characters emotional state relating to their cognitive health and wants to focus on tackling that area. |
| 11:15 | In conversation with Dr McCall  Group 5 talk about their choices around the decking and other adaptions they would make to homes in real life. They discuss that wet rooms are the most common home adaption. When questioning why wet rooms are not just a standard fitting in new developments, group 5 explain it has less to do with financial barriers and is actually a lot to do with the fact that people enjoy baths. They explain that when they fit a bath, they structure the drainage system in a way that if the bath then needs to transition to a wet room the cost and impact will be reduced because the drainage system is already prepared. They explain that changes such as these are responsive to service user needs rather than blanket preparation. |  | Group 5 explain a lot of real-life questions and help us understand why fittings such as wet rooms are not standard in new developments. |
| 11:22 | Group 4 have placed assistive technology in the rooms upstairs to help reduce forgetfulness and stress for their character. They put in place integrated smoke alarms to assist in protection | *“…like an Alexa or visual aids… to make her feel safe because she’s burning food”* | Group 4 continued to express their concerns about making their character feel safe in the home. It may be that they relate feelings of safety to cognitive health and believe if they keep ease their characters concerns about safety, they may be able to keep their character in the home for longer. |
| 11:24 | 7.2 is struggling with the vagueness of his character’s diagnosis and is unsure what changes they can make to the home that will actually fit their needs. 7.2 is also financially restricted and blows air of frustration, rubbing their chin as they try to think of a solution |  | 7.2 is experiencing some of the frustrations that the character themselves may have felt at this point in their life. 7.2’s relation to the character is causing a much more realistic emotive response to the barriers they are facing. The characters wellbeing scale has dropped to 7. |
| 11:25 | Group 5 have made large scale changes that have supported their characters needs and leave space in case of further decline. They have included changes such as a ramp for access to the home and a stair lift for their character with declining physical health. They applied for funding for the chair lift and where approved. |  | Group 5, despite not necessarily needing all of these changes, have chosen to make changes to prepare for the potential need. This has helped them feel more prepared for any incoming problems. |
| 11:26 | Group 4 have realised they will not receive funding for all the changes they want to make to their house so have begun to redesign the house to make easier for the characters to use. |  | Group 4 have experienced a realistic problem with some households and are now aware that there will not be funding for all of their needs. This is a problem real service users face, and this rejection has reminded them of this. |
| 11:32 | 7.2 has applied for 8 different grants to put in place generic changes that may help their character. They are still frustrated but funding has been approved so they do have greater support.  7.2 still wants to move. |  | 7.2 appeared to relax somewhat more once their grant was approved. Although their face is sullen, and it is clear they no longer want to live in their current home. |
| 11:37 | Despite the fact their character has experienced a decline in their physical health the primary focus of group 4 was to continue working on the cognitive state of their character. |  | 4.2 is slightly more invested in cognitive maintenance than 4.1 but it is important that both needs are considered in tandem. 4.2’s experience with cognitive decline may then be causing them to gravitate toward this being their main focus. |
| 11:40 | After deliberation, group 4 removed 2 of their smoke detectors so that their character could still move all around the house. They believe this compromise will mean their character will still feel comfortable at home | *“…it’s about helping them…but it’s also about the quality of life”* | Group 4 appear to have struck a balance between cognitive care, physical care, and mental well-being. Their well-being scale lowered slightly but overall they are still happy. |
| 11:48 | The second life change has occurred. 7.2 has learnt that that their characters physical decline will soon go up to 5 after a diagnosis. They have decided to move before their character’s condition worsens.  7.2 has moved their character to Newtown because it is by the river but is also reasonably close to the train station and medical centre so their character’s independence can be maintained for longer. |  | After 7.2 moved they explained their choice was so that their character could at least live close to where they originally wanted. 7.2 also explained that by moving they could redesign their characters home and make it suitable for his current needs. Their wellbeing scale has gone back up - they are now 13 |
| 11:53 | Group 5 have been informed their characters physical condition has declined. They both smiled and nodded in contentment as they mitigated having to deal with a worsening condition as they had already put in place the essential needs.  No changes were made. |  | By successfully mitigating their characters worsening condition, group 5 where able to make changes early and avoid doing anything in their third round. They had been successful in managing their situation |
| 11:58 | Group 4 has decided to move house as their character is not able to drive as well, which then isolates both characters. They have moved to Newtown as it is closer to the town centre and travel services. They have downsized to better protect their characters and by moving they are happy to be able to increase their socialisation. By downsizing they had spare spending money which they then used to make long term adaptions to the home. |  | Group 4 adjusted their perspective from their original one of attempting to keep them in their home for as long as possible and have moved on creating an environment that makes them feel at home even if it meant moving |
| 12:00 | 4.2 explains they are looking into the ways they can make dementia care facilities more reflective of a home whilst still supporting the service users. They highlight this experience has been beneficial for thinking about alternative needs and adaptions | *“I’ve found this really useful… we are looking into how to make (facility name) dementia friendly… and still feel at home”* |  |
| 12:05 | Looking reflectively on their experience playing the game, group 5 said they were happy with how they performed and felt they made the right choices. |  | Group 5 felt they had won because they were able to mitigate future risks. Though less consideration was placed on their characters cognitive and emotional well-being |
| 12:09 | 7.2 was pleased to have moved and felt that the move would help their character cope with the future life changes they were going to experience. Now their character had a formal diagnosis, 7.2 was able to get more grant money and support to create a home that supports their needs. They said in retrospect they should have potentially prioritised future proofing their home to help prepare for the life event their character experienced but was overall happier. | *“I think he will have a better life being where he actually wanted.”* | 7.2 was not only more relaxed by then end of the game a lot of their contentment appeared to come from having finally moved to a space they had been seeking from the beginning. |
| 12:08 | Group 4 was pleased that they moved in the end as it allowed their characters to have more social freedom. 4.1 explained that they felt prioritising a socially integrated lifestyle would improve the overall wellbeing of most people and as a result their quality of life would be better. |  | Group 4 went through different phases during the game with their priorities changing slightly throughout but were ultimately successful in creating a safe living environment for their characters. |