

# Design workshop investigating remote controls for people with dementia

The logo for 'rica' is displayed in white lowercase letters on a teal square background. A thin yellow horizontal line is positioned directly beneath the letters 'i' and 'c'.

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## Executive Summary

This research was completed by Rica in partnership with Innovations in Dementia (iD), Together Dementia Support's 'Fabulous Forgetful Friends' group, and Deep (Dementia Engagement and Empowerment Project). It is part of a three-year project funded by the John Ellerman Foundation to develop and carry out consumer research with people with dementia.

The aim of the workshop was to explore the needs of people with dementia when using television remote controls, highlighting what works and what does not, and to consider any future trends in remote controls and usability.

The research was informed by six participants with mild to moderate dementia, who all own a television and use at least one remote control to operate it. The workshop consisted of three sections: a round-table discussion of how people use their current remote controls; why people might find remote controls difficult to use, and in what way; a look at three existing remote controls to identify good and bad features; and designing our own remote control using the good and bad features identified in session two. In the third session of the workshop, participants were divided into two groups of three before coming together in a discussion round-up to share their designs with one another.

Feedback from participants highlights three important areas for remote control manufacturers to consider and improve on to produce a television remote that is accessible for people with dementia. Ideally:

### Simplicity

- not too many buttons
- big buttons that are easy to press
- a clear indication of what each button does
- one remote that will turn on and operate the television

### Functionality

- a remote that has only the buttons needed by the user
- some indication (light, sound, and/or tactile) to let the user know they have pressed a button
- buttons, specifically the channel and volume buttons, to be different colours

### Choice

- a choice of remotes when getting a television, as participants acknowledged that the same remote will not work for everyone
- a choice of background colour for the remote, as certain colours (sand was mentioned by one participant) may be better for people with dementia



- the ability to have programmable buttons on the remote which people can set to their most frequently visited channels

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## Acknowledgement

Central to this work was the willing collaboration of our participants to express their thoughts and feelings freely and be open to further exploration of their opinions. We would like to thank all of our investigators who entered into this spirit of open discourse and were a pleasure to work with.

We would also like to thank our research partners:

**Innovations in Dementia** – is a community interest company that works nationally with people with dementia, partner organisations and professionals with the aim of developing and testing projects that will enhance the lives of people with dementia. Innovations in Dementia facilitates the Dementia Engagement and Empowerment Project (DEEP), a UK network of groups of people with dementia who want to influence policy and practice. [www.innovationsindementia.org.uk](http://www.innovationsindementia.org.uk)

**Fabulous Forgetful Friends** – is part of Together Dementia Support, a not-for profit Community Interest Company offering support and therapeutic activities for people living with dementia and their carers and supporters in Manchester. The Fabulous Forgetful Friends meet monthly at various locations in Manchester to offer opportunities for people living with dementia to talk about the challenges they face and their achievements in living well. This group also aims to be an influencing group, telling professionals, service providers and the public what they can do and what their particular support needs are.

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## Rica

Research Institute for Consumer Affairs (Rica) specialises in consumer research with older and disabled consumers. Founded through the Consumers Association, publishers of Which?, Rica became independent in 1991.

Rica has its own [consumer panel – the RicaWatch panel](#) – of over 750 people and is a disability-led organisation. Ten of the charity's twelve Trustees have a disability. Rica carries out [commissioned research work](#) with industry, other charities, service providers and policy makers to improve products and services. With grant funding Rica also publishes free [consumer reports](#) based on independent research.

[www.rica.org.uk](http://www.rica.org.uk)

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## 1. Introduction

In January 2018, Rica approached the Fabulous Forgetful Friends DEEP group to discuss involvement in Rica's research into accessible products and services for people with dementia.

This research is part of a three year project funded by the John Ellerman Foundation, completed in partnership with Innovations in Dementia (iD) and local groups developed through The Dementia Engagement and Empowerment Project (DEEP).

Following a meeting with the Fabulous Forgetful Friends DEEP group to discuss potential research topics, television remote controls were decided on since several members of the group regularly have difficulty using remote controls.

The aim of the research was to explore the needs of people with dementia when using television remote controls, highlighting what works and what does not, and to consider any future trends in remote controls and usability.

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## 2. Background

The Alzheimer's Society estimates there are 850,000 people with dementia in the UK. People with dementia need and want to be consulted about environments, services and products, just the same as other consumers. Conversations and surveys with people with dementia and their carers indicate that their main areas of concern relate to the practicalities of everyday living. Group work, especially with those living alone, reveals that it is the increasing inability to cope with the day-to-day activities that frustrates and depresses them and leads them to withdraw from even trying.

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## 3. The participants and environment

All names used in this report are pseudonyms.

Six participants attended the workshop: four women (Gemma, Brittney, Elizabeth, and Abigail) and two men (Henry and Michael). All the workshop participants belong to the Fabulous Forgetful Friends DEEP group and have mild to moderate dementia.

Also in attendance were two people from Together Dementia Support (Sophie and Alice), who run the Fabulous Forgetful Friends DEEP group.

It was important that a venue familiar to the participants was used for the workshop, therefore the Amani Centre in Manchester was chosen, as this is one of the locations where the group regularly meets.

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## 4. Method

The workshop took place on Monday 14 May at 11:30am and lasted approximately two hours. Prior to the workshop, Denis from Rica visited the group and discussed three potential topics for investigation raised by the group: television remote controls, taxi services, and shopping centres. After considering these topics at the next DEEP group meeting, the group settled on investigating television remote controls.

The workshop consisted of three sections: a round-table discussion of how people use their current remote controls, the difficulties they have using their remote controls, and why; a look at three existing remote controls to identify the good and bad features of each; and designing our own remote control using the good and bad features identified in session two.

Two researchers from Rica attended the workshop, one (Denis) coordinating the workshop and the other (Julia) taking notes. Both had the same prompt sheets for discussions and took notes and audio recordings. See Appendix 1 for the prompt sheets.

### 4.1 Session one: Understanding the need for an accessible remote control

The first part of the workshop was used to collect information and stories from participants about how they use their current remote controls. Discussion drew from a questionnaire Alice had devised and gone over with participants prior to the workshop (See Appendix 2).



Alice visited four of the participants in their homes to discuss the difficulties they currently experience with their own remote controls and asked the other two participants' partners to do the same. Each participant was asked to perform certain tasks with their remote: turning on the television, changing the channel, and using the guide feature. Participants noted difficulties with the complexity of their controls, the quantity of buttons, using the number buttons, using the guide feature, the number of remotes (if using more than one), and setting up their remote controls.

It is important to understand how participants use their current remote controls so that the context and scope can be better understood when designing a new remote control. We were also interested in finding out the difficulties participants have with their current remotes and how these difficulties might be addressed.

This task took approximately 20 minutes.

## 4.2 Session two: Discussion of existing products

In the second session of the workshop we examined three existing remote controls: the Geemarc TV5, the Geemarc TV15, and the Flipper. The group examined the designs of these three remotes and discussed the positive and negative features of each.

A Rica researcher wrote down on post-it notes the good and bad features, good features on green post-its and bad on red. These were used in the third part of the workshop to design a new remote.

This review discussion lasted for approximately 20 minutes.

## 4.3 Session three: Designing a new product

Following a short refreshment break, participants were split into two groups of three with a Rica researcher in each group. Group A was made up of Denis (Rica), Gemma, Elizabeth, and Abigail, with Alice (group coordinator) also joining the group. Group B was made up of Julia (Rica), Henry, Brittney, and Michael. For this session, each group had an A4 sheet of paper on which to draw their remote control design.

The prompts, and the green post-it notes from the earlier session, were discussed as to how suitable they were for inclusion on the new remote control; then a design was settled on.

This task took about 20 minutes and was followed by a short discussion with the whole group to see if the design of the remote control would address the difficulties participants had expressed in session one of the workshop.

Researchers used prompts (see Appendix 1 for prompt sheet) to ensure the discussion touched on specific areas, but active listening was used to expand on participants' experiences and on potential areas of interest.

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## 5. Results

### 5.1 Session one: Understanding the need for an accessible remote control

#### 5.1.1 Overview

The participants discussed the issues related to using television remote controls. They considered how they use their current remote controls, the difficulties they have using remote controls, what they would like to be able to do with a remote control, the features they would like on a remote control, and what an accessible remote control might look like.

The participants also noted that the remote control might look different for each person, depending on the individual's preference and their stage of dementia. Personal choice was highlighted further in the design stage of the workshop.

#### 5.1.2 How might an accessible remote control be of use?

When reviewing the questionnaires they had completed before the workshop, participants noted that their current television remote controls were 'confusing' and had buttons they did not use, and that they had difficulties pressing the correct buttons.

*'It's still a bit confusing, the turning the channels and the sound, sometimes I get mixed up with them. So if I go to turn up the sound, it's the channel thing and I've used the wrong one. I get them confused sometimes because they're so small. It's just the letters so it's a bit confusing.'* – Brittney

*'What I've seen people do is cover up the buttons they don't use. The majority of the button ones and things like that. You try and keep the buttons clear for up, down, channel, and sound.'* – Henry

*'My remote has lots of buttons. I'm not sure what they all do.'* - Michael

Participants also commented on the difficulties they had setting up their remote controls and learning and/or remembering what each button does.



*'I used to find them difficult when I first got them, but once my daughter had been and sorted me out and watched me do it a few times I was alright... The numbers are fairly obvious but there are other things on there that are not obvious. Like "AV," I don't know what that is. I know what delete is. I mean I know mostly what all those things do now. Some of them I don't use very much.'* – Gemma

*'Sometimes they don't work though [when trying to set up the remote]. Years ago we got[a new] one because we'd lost the remote control, before I got the memory problems, and when you're trying to sync it up it didn't always work, well I couldn't get it to work.'* - Brittney

Brittney, who currently has three remotes, mentioned the benefits of having everything you need on one remote.

*'We have just added a sound bar but this needs to be switched on separately so now we have three remotes. This has made it more challenging.'* - Brittney

*'I've got a voice control thing but I don't use it. It's on a separate remote. I've got too many remotes and it's too much for me.'* - Brittney

Henry uses a more simplistic remote control with icon buttons.

*'It's simplistic. You don't have too many buttons to press. It's literally what you can see. It's very basic and I can use my TV and my set-top box with that. You can speak to it too. Just under the 'on' button you can see a little mic. It's not used very often but it can be used. And they're quite big to see. There's another remote that came with the TV and it's just too busy... And the home is the home [icon] and the back button is the back [icon].'* - Henry

## 5.2 Session two: Discussion of existing products

### 5.2.1 Overview

Three remotes were reviewed in this part of the workshop: the Geemarc TV5, the Geemarc TV15, and the Flipper. A photo of the Geemarc TV5 was printed and laminated and the Geemarc TV15 and the Flipper were purchased beforehand so the actual remotes could be examined and felt.

These three remotes were chosen from a list of eight remotes currently available for purchase that advertise themselves as simple and easy to use (see list in Appendix 3). Geemarc makes five of these remotes and so two were chosen from this manufacturer. The Flipper was chosen as it was the only remote on the list to have 'hidden' buttons that are concealed with a sliding feature.

Whilst the group discussed these remotes, the positive and negative points as seen from the group's perspective were written down onto green and red post-it notes. These were used later in the workshop to help inform the groups' remote control design.

### 5.2.2 Geemarc TV5



Figure 1. Geemarc TV5

This remote is the simplest of the three, with only eight buttons. The group thought the simplicity of the remote was good, especially the clarity of the volume and channel buttons.

*'It's alright. I can see the volume and those are the channels there. It's quite simple that one.'* – Gemma

There was some confusion as to what the '1-2' button on the top left-hand corner of the remote did.

*'What's one and two?... The only thing I'd say on that remote is people might have a problem with the AV, if they had a set top box and they had to find that. It needs to be clearer which is the set top box.'* - Henry

Elizabeth expressed that she wouldn't know how to set up this remote.

*'I wouldn't know where to start.'* - Elizabeth

### 5.2.3 Geemarc Easy TV15



Figure 2. Geemarc TV15

The Geemarc Easy TV15 was, over all, received favourably by the group, although it is possible that this was due in part to the fact that this was the first physical remote examined in the workshop. Previous discussion had centred on participants' own remotes, with accompanying photos, and the photo of the Geemarc TV5.

Features noted as positive were the simplicity of the remote, as well as the large buttons, which Henry noted you could feel when you had pressed them down.

*'It's a basic one isn't it.'* – Michael

*'I think it's clear. It's quite big and you wouldn't need glasses to see it. I only wear my glasses for reading so I struggle to see signs. I like that. It's a good one that.'* - Brittney

*'It's quite simplistic compared to others we've seen. You can actually feel it press down as well.'* – Henry

The '1-2' button was similarly noted as being confusing, as it was the same button as on the Geemarc TV5 examined previously. Alice suggested that perhaps the '1-2' button was used to switch from the television to a set-top box. Gemma and Brittney both found this confusing.

*'I thought it was to do with channels.'* – Gemma

*'That's quite complicated that.'* - Brittney

Although the group overall liked this remote, the lack of colour was noted by Henry who found the black buttons on the black remote did not stand out very clearly. He commented that a sand colour was most appealing to him. Henry also suggested that perhaps a few colours should be available for consumers to choose from.

*'The only thing I would like to change is the colour. It should be either a sand colour or a yellow-y colour onto black because it's visually better to see for people with dementia. The contrast with the buttons makes it clearer, makes it stand out against itself... I think people should choose a colour, because people with other visual impairments, dyslexia and so on might find it better with a different remote colour.'* - Henry

## 5.2.4 The Flipper



Figure 3. The Flipper



Figure 4. The Flipper's hidden features

Initial comments on the Flipper noted that because of its unusual colour and shape, the Flipper did not look like a television remote control to the participants.

*'Is that for your bubble bath machine?' - Henry*

The group liked the top part of the remote, particularly the different colours for the channel and volume buttons. These were further distinguished by having different markings, arrows for channels and a plus and minus for volume. Although these markings were similar to those on the Geemarc TV5 and TV15 remotes, the different colours of these two sets of buttons, as well as their contrast to the grey surface colour of the remote, made them stand out to the participants. This also addresses the difficulty some of the participants mentioned in session one with their own remote controls of distinguishing between the channel and volume buttons.

*'I like the top part of it. Those are good colours for me, I can see them.' – Brittney*

*'It looks very simple that. It's just channels – up and down with the arrows and volume, a cross and a minus. It's very basic but it would serve the purpose.' – Gemma*

*'I would say it's down to the individual. If it's just a television that people have, then I think it'd be great. The colours are nice.'* - Henry

The group had mixed feelings on the sliding feature, which contained 'hidden' buttons, e.g. the number and function buttons. While Michael liked the simplistic look the cover gave the remote, Elizabeth and Henry commented that the cover could pose difficulties for them in accessing or remembering that the buttons were there.

*'Because of the cover it stops it being busy, which is good.'* – Michael

*'For me, [the Flipper] would be too much.'* – Elizabeth

*'Some people would forget about the hidden features.'* - Henry

Henry and Brittney also commented that the 'hidden' buttons, especially the function buttons in the row closest to the bottom, were difficult to access and the grey on grey colour made them difficult to see.

*'I don't like the idea of those buttons at the bottom. Bit of a fiddly place to get to.'* - Henry

*'Hard if you've got big fingers as well.'* - Brittney

*'And not only that, but maybe some people won't see them as well, the grey on grey.'* - Henry

## 5.2.5 Summary of liked and disliked features

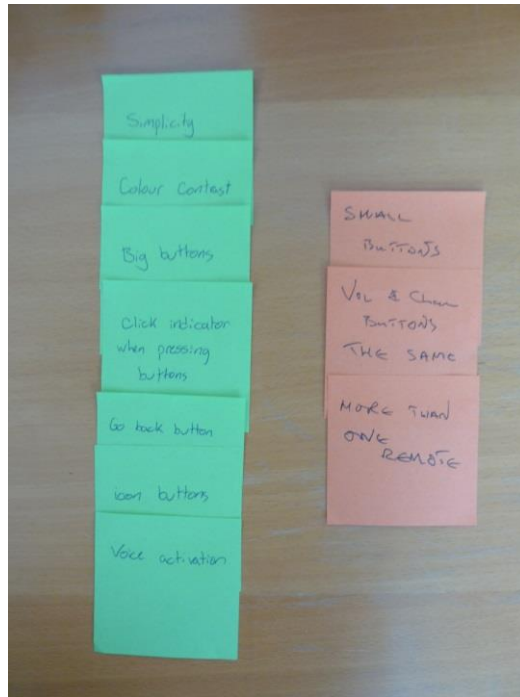


Figure 5. Post-it notes with positive and negative features of the three remotes discussed

When asked which remote out of the three examined participants would choose for themselves, all six participants chose the Geemarc TV15. Its simplicity and recognisability as a remote were noted by participants as positive features.

*'It's easier to use.'* – Brittney

*'The black one is more comfortable in the hand.'* – Henry

*'It's easier, yeah. But then I'm thinking if it's because we recognize the black one as a remote control because they're nearly always black.'* - Brittney

Two of the participants also noted that they wouldn't use the number buttons on the Flipper and so wouldn't use most of the hidden features.

*'Do you know your [channel] numbers? I couldn't tell you the [channel] numbers.'* – Henry

*'Sometimes if you're not quick enough [when using the number buttons] and you miss a number, it will take you back to what you had on before. So sometimes it takes me a few tries. Unless you're going up and down [with the channel up and down buttons].'* - Brittney

However, Elizabeth noted that the lack of an indicator on the Geemarc TV15 to let you know if you had pressed a button posed some difficulty.

*'I wouldn't know whether I had pressed it enough.'* - Elizabeth

| Remote            | Geemarc TV5 | Geemarc TV15 | Flipper     |
|-------------------|-------------|--------------|-------------|
| Volume buttons    | Yes         | Yes          | Yes         |
| Channel buttons   | Yes         | Yes          | Yes         |
| Number buttons    | No          | No           | Yes         |
| Guide/home button | No          | Yes          | No          |
| Exit/back button  | No          | Yes          | No          |
| Colour of remote  | Black       | Black        | Grey        |
| Colour of buttons | Black & red | Black & red  | Multicolour |
| Hidden features   | No          | No           | Yes         |
| Light indicator   | No          | No           | Yes         |

Table 1. The above table shows the features of the three remotes examined during session two. Features shaded green were seen as positive by the group, red as negative, and unshaded as receiving mixed opinions from the group.

## 5.3 Session three: Designing a new product

### 5.3.1 Overview

In the third session of the workshop, the group used the insight gained from discussing the difficulties they have with their own remote controls, as well as the good and bad features discussed whilst reviewing existing remote controls to help inform the design of a new remote control.

The participants were split into two groups with a Rica researcher in each group. Group A was made up of Denis (Rica), Gemma, Elizabeth, and Abigail, with Alice (group co-ordinator) also joining the group. Group B was made up of Julia (Rica), Henry, Brittney, and Michael. Each group created a design for a new remote control before coming back together for a round table discussion of the designs, and whether these designs would address the difficulties participants expressed in session one.



### 5.3.2 Design – Group A

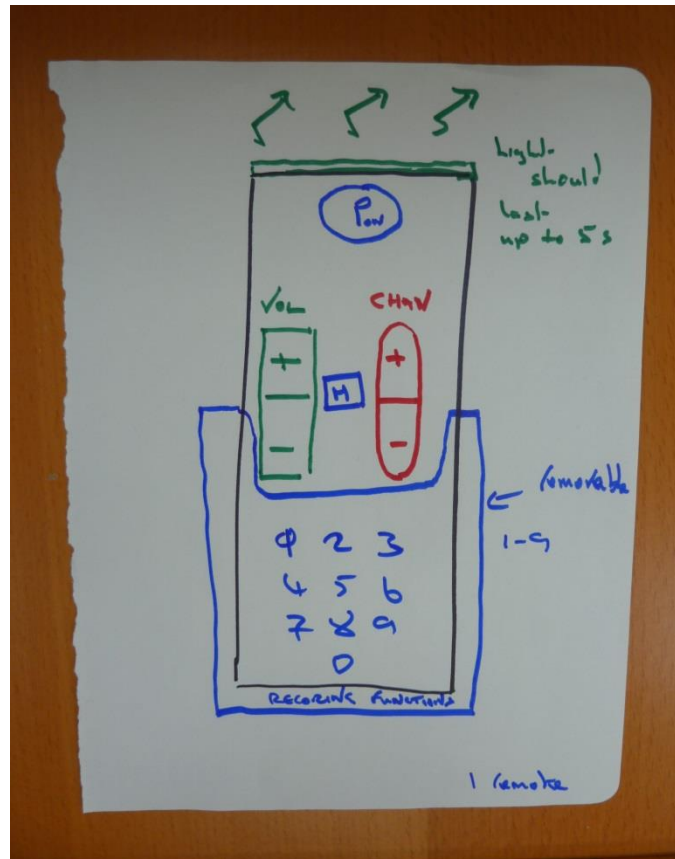


Figure 6. Group A's remote control design

Group A approached the design of their remote control by first discussing the features they would like to see on the remote.

Four features of interest were:

- Different colour volume and channel buttons
- A detachable cover over the number buttons and other function buttons
- A light indicator that tells the user when they've pressed a button
- A home button that takes you back to the last channel you were on and to a reasonable volume setting

All three participants agreed that the channel buttons should be a different colour from the volume buttons. This alleviates some of the confusion participants felt when operating their own remote controls, often pressing the wrong buttons by mistake.

*'If that was green, you could have the other buttons red or yellow, or whatever colour.'* – Gemma

Gemma said that she would like to have number buttons on her remote, whereas Elizabeth and Abigail said they do not use the number buttons. To accommodate both preferences, a sliding feature like the one on the Flipper was suggested. The hidden area would contain the number buttons and other functions, such as recording buttons.

*'All the numbers for your channels - I like them... I think it actually depends a bit. If you live with somebody else or you live on your own and you have to rely on your own ingenuity for finding your way around the television.'* – Gemma

*'Number buttons would be too much.'* – Elizabeth

While Elizabeth and Abigail liked the suggestion of a sliding feature to cover the number and less-frequently used function buttons, Gemma preferred if the cover was completely detachable. Otherwise, she thought people might forget that the hidden buttons were there.

*'If the [buttons are] covered, [people] might never use them because they'll just forget that they're there.'* - Gemma

The group discussed both sound and light indicators to tell the user they had pressed a button. A light indicator was settled on after Elizabeth expressed that she would not want to hear a noise when she pressed a button. The light is in the form of a bar shape at the front of the remote. A light-up time of approximately five seconds was thought to be enough time to indicate that a button had been pressed.

*'I've got a noise on mine. It's not very much but I do have a bit of a noise. Like a "ping." It just tells you that you've pressed a button.'* – Gemma

*'No, I don't want that [a noise].'* – Elizabeth

*'What about a light? Like an LED light that goes on when you press something?'* – Alice

*'Yeah, that would be good.'* – Elizabeth

*'Yeah, mine has that. Mine has everything... My [light] comes on and then it's gone. It might be better to make it last a bit longer.'* – Gemma

*'How long should it last?' – Denis*

*'Maybe five seconds. It tells you you've operated your remote control.' – Gemma*

The group also discussed a 'safe' or home button that, when pressed, would take the user back to the last channel viewed and reset the volume to a reasonable level. This would alleviate difficulties participants expressed in session one of sometimes finding themselves on a channel by mistake and having trouble getting back to the last channel. Participants also sometimes mixed up the channel and volume buttons, resulting in the volume being too loud or too soft and making it difficult to get back to a reasonable level. This button would act as a 'safe' button, allowing the user to go back to a place they feel comfortable and reducing the anxiety of making a mistake.

*'A safe place, where you press it and the volume goes down to a sensible level and it goes back to the channel you chose.' – Denis*

*'Yes, I think so... it goes back to where you were.' – Elizabeth*

### 5.3.3 Design - Group B

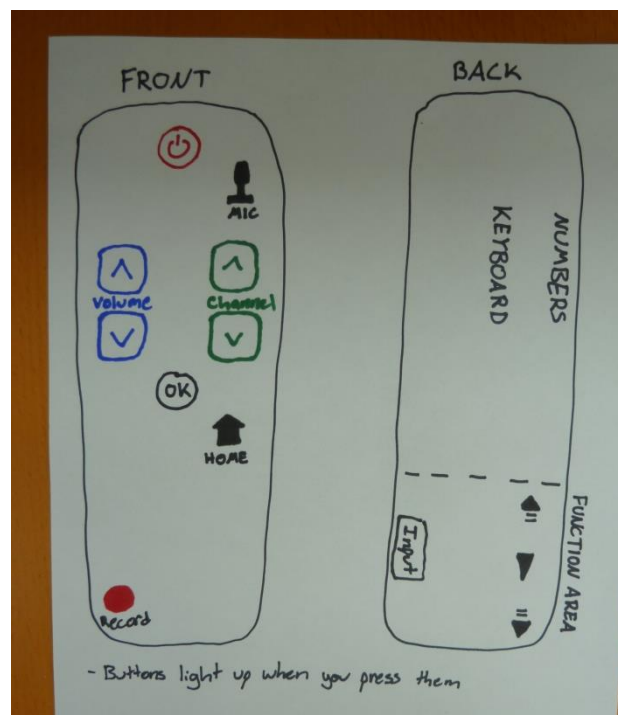


Figure 7. Group B's design

Group B began by discussing the shape and feel of the remote, likening the shape to that of the Geemarc TV15.

Four features of interest were:

- Shape and colour of the remote
- Clearly indicated volume and channel buttons
- Icon buttons
- A separate function area

The group began by referencing the Geemarc TV15 examined in session two. Its recognisability as a remote and its shape were noted as being positive features. The colour of the remote and colour of the buttons were noted as being down to personal choice.

*'It should be comfy for the hand.'* – Henry

*'I think it's best to play with colours.'* – Henry

*'Yeah, once you know what colour the background will be.'* - Brittney

While the group commented that the background and button colours were a matter of personal choice, they also noted that the channel and volume buttons should be different colours in order to contrast both with each other and with the surface colour of the remote. The group also commented that colour would not be enough to distinguish the buttons and stated that the volume and channel buttons should be separate on the remote, rather than right next to each other.

*'I would have the volume and the channels separate. Not together because it could be a bit confusing. Volume is on the left, programme [buttons] are on the right.'* – Henry

*'I like the up and down buttons.'* - Brittney

The group discussed using icon buttons on the remote. This was thought to be particularly helpful if people lose the ability to read, as they may still recognise a picture. A verbal command function was also thought to be helpful, as it would allow people to speak into the remote rather than having to find the right button to perform a particular function.

*'You have to consider different capabilities because some people will lose the suggestion of reading. So therefore, a picture they might recognise.'* - Henry

*'It would be nice for there to be a verbal command... A microphone is recognisable.'* – Henry

*'I would recognise a microphone if it were clear enough to see.'* – Brittney

The group emphasised keeping the front of the remote very clear and simple, with only buttons that are frequently used. They also acknowledged that there are other functions they would want to perform with their remotes but recommended these be in a separate function area on the remote to avoid confusion and clutter. These functions included: number buttons, recording functions, and an input button.

*'We need loads of stuff [buttons & functions] because televisions can do loads of stuff.'* – Michael

*'For those who want that choice [of more functions], maybe a separate unit on the back [of the remote].'* – Henry

*'Yeah, I like that.'* – Michael

*'It's like a multi-choice, those who are quite happy with [the basic features on the front of the remote] or they can go over [to the back of the remote] and they can type it or use all of the other features on this side. Buttons you're going to use a lot go on the front... So then people have got a choice.'* - Henry

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## 6. Conclusions and recommendations

After about 20 minutes of designing their own remote controls, the two groups reconvened to share their designs. Denis and Julia briefly presented each design, going over the features each group had included.

Feedback from participants highlights three important areas for remote control manufacturers to consider and improve on to produce a television remote that is accessible for people with dementia:

### 6.1 Simplicity

One of the main difficulties participants have with their current remote controls was the busyness of the remote control surface. When discussing a new accessible remote control design, both groups emphasized the simplicity of face of the remote. Buttons that were used less frequently were placed either under a cover or on the back of the remote to keep the surface of the remote clear for frequently used buttons. This was thought to help alleviate confusion when operating the remote control.

Additionally, buttons should be large and clearly marked. A preference for icons varied among group members, with some preferring icons as people with dementia may lose the ability to read and may recognise a picture for longer. Whether buttons are icons or not, buttons should be clearly labelled with both markings and text. Labelling the buttons would suit a variety of abilities and help to clearly indicate the function of each button.

Participants expressed a preference for having only one remote that could both turn the television on and off and be used to operate the television and set top box. This was particularly expressed by Elizabeth, Brittney, and Gemma who each currently use more than one remote to turn their televisions on/off and to operate their televisions.

Key recommendations:

- not too many buttons
- big buttons that are easy to press
- a clear indication of what each button does
- one remote that will turn on and operate the television

## 6.2 Functionality

Participants commented that they didn't use many of the buttons on their remote controls. Having too many buttons tended to get in the way of the user when operating the remote. Removing these buttons or placing them under a sliding feature or in a separate area of the remote would alleviate confusion and anxiety for users when using their remote controls.

An indication of when a button has been pressed would signal to users that the function has been performed. Participants thought a light on the remote or lights behind the buttons would serve this purpose. This was thought to be preferable by the majority of the group to a noise indicator. Being able to feel the button press down is also a positive indicator to users that a function has been performed. Participants commented on this feature on the Geemarc TV15, as they were able to confidently feel when they had pressed a button.

Changing the colours of the buttons, particularly to distinguish between the volume and channel buttons, was unanimously agreed upon as something that would help users operate a remote control. One participant shared an idea of colouring the different buttons on her remote with nail polish to help her distinguish between them. This strategy points to the usefulness of having different coloured buttons.

Key recommendations:

- a remote that has only the buttons actually used or needed by the user
- some indication, perhaps through light or touch, of when the user has pressed a button
- buttons, specifically the channel and volume buttons, to be different colours

## 6.3 Choice

One of the key themes repeated throughout the workshop was choice. Gemma recommended giving consumers a choice of a remote when purchasing a television, even if some options cost a bit more. By giving consumers a choice between the remote that usually comes with the television and a simpler remote, users could learn to set up and operate their televisions with a simpler remote from the start, rather than having to purchase another remote separately and go through the set up process again.

Difficulty in setting up a new remote was a concern expressed by the participants, one of whom said they would never purchase a new television again so that they would not have to go through the process of setting it up again. Giving consumers a choice of remotes from the very beginning would alleviate the stress of having to purchase and set up a different remote later on.



A choice of background colour for the remote was also recommended by Henry. He specifically noted that a sand colour was easier to see for him, as well as perhaps for others with dementia. Henry also noted that different colours may work better for different people and so a choice of background colour when purchasing a remote control would benefit the consumer. Having contrast between the surface colour of the remote and the buttons would help the buttons stand out to users.

Participants also liked the idea of having programmable buttons on their remote to return to their favourite channel or a reasonable volume level. Described as a safe or home button, this button would allow the user to return to a place they felt comfortable in the event they got confused or pressed the wrong button.

Key recommendations:

- a choice of remotes when getting a television; participants acknowledged that the same remote will not work for everyone
- a choice of background colour for the remote, as certain colours (sand was mentioned by one participant) may be better for people with dementia and/or particular visual impairments
- the ability to have programmable buttons on the remote that people can set with their most frequently visited channels