

Institution: Kingston University		
Unit of Assessment: 32 – Art and Design: History, Practice and Theory		
Title of case study: Enhancing dementia care via sensory design		
Period when the underpinning research was undertaken: 2013 – 2018		
Details of staff conducting the underpinning research from the submitting unit:		
Name: Anke Jakob	Role: Lecturer and Research Fellow	Period employed by submitting HEI: Oct 2008 – present
Period when the claimed impact occurred: 2014 – 2020		
Is this case study continued from a case study submitted in 2014? N		

1. Summary of the impact

Caring for people with dementia requires that we understand how best to design activities and environments for them. Dr Jakob's research has addressed this need. Her work has impacted the wellbeing of people living with dementia and their carers through improved design of environments, activity products, and sensory experiences. It has allowed various stakeholders to increase the engagement of those with dementia. The research (1) enabled care providers to improve the facilities and service they offer by creating more appropriate multi-sensory environments in their care-homes, (2) convinced dementia product suppliers to extend their range to better respond to user needs by including sensory-focused and age-appropriate designs, and (3) supported community projects and the heritage sector in adapting their services to meet the sensory needs of people living with dementia.

2. Underpinning research

Jakob's research focuses on the design of multi-sensory environments (MSE), also referred to as 'Sensory Rooms'. Her work explores how effective sensory design can improve user experience of these MSEs, positively impacting the wellbeing of people living with dementia, who have special sensory and cognitive needs. In 2013 – 2014, Jakob led an AHRC-funded interdisciplinary research project that investigated the quality and design of existing MSEs in English care-homes for residents living with dementia [R1]. This project built on previous research carried out by Kingston design researchers, which focused on the design of dementia care environments [R2].

In an attempt to alleviate psychological and behavioural symptoms in people with dementia through non-pharmacological care methods, MSEs were installed in numerous care-homes in the UK from the mid-noughties onwards. But anecdotal evidence suggested that they often failed to deliver the anticipated benefits. Staff often grew discouraged, perceiving these spaces to be of little value and leaving the rooms abandoned. Jakob's research confirmed that this was due to poor and inappropriate design. Jakob responded by exploring how design interventions could improve residents' experience of MSEs. The research involved identifying gaps in service, collating evidence of best practice, and subsequently developing strategies and recommendations for design improvement.

Collaborative partnerships with experts and professionals from healthcare were formed for this research project, including that with co-investigator Dr Lesley Collier (an occupational therapist and academic), practice partner Care UK (a leading independent provider of health and social care services), and academics from KU's Faculty for Health, Social Care and Education (FHSCE). This was one of the first cross-faculty research initiatives between Kingston's Design School and FHSCE, on the emerging KU research theme of *Designing Health Interactions*.

Impact case study (REF3)

In order to assess the current situation, Jakob and her team conducted an ethnographic study involving 16 care-homes in the Greater London and Southampton area. They critically examined the design quality of existing MSEs and how they are used. Key findings from the study revealed aesthetically and functionally inappropriate installations and set-ups. Often, the MSEs placed too much emphasis on visual and tactile experiences, risking stressful visual overstimulation for users. The research revealed a lack of knowledge amongst care practitioners—as well as a lack of guidance for them—about how to facilitate sensory activities and environments for older people with dementia [R3, R4, R5].

Building on these insights, Jakob and her team went on to establish design criteria that meet the specific needs of individuals living with dementia, and their carers. As a next step, they developed design recommendations for installing a sensory enhanced space to be used by people with dementia. These guidelines were published online as a freely available, practical, hands-on guidebook [R6]. This guidance fills a gap in the understanding of best practices, and has enabled a significant improvement in the experience of MSEs for people living with dementia.

3. References to the research

R1 – AHRC (2013 – 2014) The Multi-Sensory Environment in dementia care: the role of design, AHRC Early Career Research Grant number AH/K003135/1; <https://qtr.ukri.org/projects?ref=AH/K003135/1>

R2 – Dalke, Hilary et al (2011) *Living with dementia: can design make a difference?* ISBN 9781907684135 <https://eprints.kingston.ac.uk/id/eprint/23111/>

R3 – Jakob, Anke and Collier, Lesley (2017) Sensory enrichment for people living with dementia: increasing the benefits of multisensory environments in dementia care through design. *Design for Health*, 1(1), pp. 115 – 133. ISSN (print) 2473 – 5132; DOI: [10.1080/24735132.2017.1296274](https://doi.org/10.1080/24735132.2017.1296274) REF2ID: 32-59-1710

R4 – Collier, Lesley and Jakob, Anke (2017) The multisensory environment (MSE) in dementia care: examining its role and quality from a user perspective. *HERD: Health Environments Research & Design Journal*, 10(5), pp. 39 – 51. ISSN (print) 1937 – 5867; DOI: [10.1177/1937586716683508](https://doi.org/10.1177/1937586716683508)

R5 – Jakob, Anke and Collier, Lesley (2018) Sensory design for dementia care - the benefits of textiles. *Journal of Textile Design Research and Practice* (RFTD), 5(2), pp. 232 – 250. ISSN (print) 2051 – 1787; DOI: [10.1080/20511787.2018.1449078](https://doi.org/10.1080/20511787.2018.1449078) REF2ID: 32-52-1709

R6 – Jakob, Anke and Collier, Lesley (2014) *How to make Sensory Room for people living with dementia – a guidebook*. [online] Kingston.ac.uk/sensoryroom REF2ID:32-59-1710

4. Details of the impact

The ultimate beneficiaries of Jakob's research are the people living with dementia and their carers and care givers. The core pathway to impact has been the online publication, *How to make Sensory Room for people living with dementia – a guidebook* [R6]. This unique resource is the first ever guidebook advising on design of MSE for dementia care, and supports carers, care-home staff, and healthcare practitioners by helping them to provide environments appropriate for residents with dementia and their families. As a result, care practitioners and carers are now in a stronger position to support suitable activities and social interaction, thereby helping people with dementia, particularly in later stages, to (re)connect with their environment, regain a sense of purpose, maintain dignity, and reduce isolation.

Launched in October 2014, the guide is freely available through Kingston University and was subsequently referenced on online platforms and in the press. It has been mentioned on a variety of websites for organizations supporting people with dementia, including alzheimers.net,

buildingbetterhealthcare.com, colleaga.org, and alphagalileo.org. The design guide and the research have had global reach [S1], leading to three main areas of impact: (1) It has enabled **care providers** to improve dementia care environments; (2) It has influenced **suppliers of activity products** for people living with dementia encouraging them to extend their range of new sensory and/or more dementia-appropriate products; (3) It has impacted **community projects** by influencing adaption of services to meet the needs of people living with dementia. These improvements have in turn benefitted people living with dementia and their families.

1) Care providers

The research has impacted care provision, reaching providers first through direct co-design-based work with Coombe Hill Manor (CHM) care-home, Kingston upon Thames (2017 – present). After studying the guidebook, staff from CHM approached Jakob for advice on transforming an under-used lounge into a new space to be used for multi-sensory activities for the residents of the home's dementia suite [S2]. The new unique facility is now used on a daily basis. In a letter to the university, CHM's manager stated that *'this new facility significantly improves and supports the daily work of staff as the possibilities to provide person-centred care are endless'*. The private care provider running CHM is considering rolling out the intervention in its other care-homes (currently 13 homes with 6 more under construction, located in Greater London and South England) [S3].

Based on recommendations from the guidebook, a new MSE was also created at Rose Blumkin Jewish Home (RBJH) in Omaha, USA (2015). The home caters for 86 residents, 61 of whom are living with dementia [S4]. Jakob was contacted by RBJH's occupational therapist, who asked for permission to use information from the online guidebook for a presentation at RBJH and to subsequently design this new facility. The therapist stated that *'the guide educated us in important design features and practical considerations for this kind of environment that we had not found in other resources.'* [S4]

Jakob also advised on the transformation of an abandoned room meant for sensory stimulation on the dementia ward at Ronald Gibson House, South London (2014), supported by a GBP4634 People's Postcode Trust grant [S5]. It acted as the case study in the guidebook [R6]. Feedback from the home's Activity Co-ordinator described how *'the new room benefited especially from your [Jakob's] advice ... regarding how to arrange the space'*. They stated that the stimulating, yet calm room *'helps to reduce challenging behaviour and stress. This applies not only to residents with dementia but also to residents with other mental health issues'* [S6]. They reported one resident, who usually expressed distress through shouting and abuse, saying *'I cannot take it anymore, can I go to Paradise room now?'* – demonstrating the positive reputation of this sensory room [S7].

2) Suppliers of multi-sensory and dementia activity products

Relish (formerly Active Minds), a UK-based supplier of activity products - that is, products designed to engage people with dementia, has developed a new product range inspired and informed by Jakob's research. The company became aware of the research and the guidebook when their head of design visited the exhibition *Sensory Rooms: designing interventions to support dementia care* in London's Somerset House in 2014, and participated in the accompanying panel discussion [S8]. They developed a new product range to respond to the particular needs of people with dementia, ['Sensory Products for Dementia'](#), which includes Scentscapes, Sensory Scenes, and Sensory Snap. These are bought by care homes and individuals caring for someone with dementia. Relish's Lead Product Designer has stated *'the addition of sensory products to our portfolio helped to provide comfort and reassurance to those in the later stages of dementia. The sensory category, inspired directly by Dr. Jakob's research has been hugely popular with customers both at home and in professional care settings.'* [S9]

After reading the guidebook, another multi-sensory products supplier, Rompa, began to develop more products for older adults, realising their scarcity in the market. The guidebook has impacted the New Product Development Team's decision-making when designing new products for Rompa's catalogue 'Meaningful Activities for Older Adults', been an essential tool for sales consultants working with care homes, and has been reported to affect the choices of customers regarding product and room design [S6]. The 2019 edition of Rompa's catalogue [S10] contains a supporting quote from [R6].

3) Communities

As a result of Jakob's research, Historic Royal Palaces (HRP) modified their health and well-being programme '[Sensory Palaces](#)' to better meet the sensory needs of people living with early-stage dementia and their carers. After visiting the Somerset House exhibition and reading the guidebook, HRP used the information to support the development of Sensory Palaces community sessions, which are run at Kew Palace and Hampton Court Palace. HRP authorities said that the research made them '*more aware and informed about the many issues surrounding sensory stimulation*' and that '*the aspect of sensory stimulation versus sensory overload was something they needed to carefully consider*'. The guidebook was '*very useful and informative for creating sensory activities for people living in the early stages of dementia*' and they were therefore more able to attune their programme to the needs of their target audience and their carers [S11].

Jakob's research has thus reshaped both the caring environment and the conversation on how to engage people living with dementia.

5. Sources to corroborate the impact

S1 – *Australian Journal of Dementia Care* (2015) [DIY guide to creating a sensory room](#)

S2 – *Journal of Dementia Care* (2019) [Leading designer transforms care home room with immersive tech](#)

S3 – Testimonial from the General Manager at Coombe Hill Manor care home

S4 – Testimonial an Occupational Therapist at the Rose Blumkin Jewish Home

S5 – [Wandsworth Guardian Article](#), 8 April 2014

S6 – AHRC Project - [The Multi-Sensory Environment \(MSE\) in dementia care: the role of design](#)
> Outcomes > Impact Summary

S7 – Design4Health 2015 European [Conference Paper](#)

S8 – Inside Out Festival 2014: exhibition - [Sensory Rooms: designing interventions to support dementia care](#); event - [Designing interventions to support dementia care: presentations and panel discussion](#).

S9 – Testimonial from the Lead Product Designer at Relish

S10 – Rompa's [Meaningful Activities for Older Adults Catalogue \(fifth edition\)](#) (p 14)

S11 – Testimonial from the Community Learning Producer at Kensington Palace