Experiences of a Novel Interactive System for Group Reminiscence Therapy in the Irish Care Home Setting

MSc. Research Thesis by

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Self-Declaration

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of Master of Science is entirely my own work, that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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Completing this thesis was a challenging but enjoyable journey. This thesis would not have been possible without certain people in my life who provided opportunities for both gentle encouragement in my learning and reflective thinking and stern direction on self-application when life distractions challenged me.

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Abstract

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Background: Using technology to procure and deliver content for reminiscence therapy is not new in care home activities and evidence has shown that technology has the ability to improve reminiscence, making it less arduous for the carer and potentially more beneficial for the person with dementia. There is limited literature on the practical recommendations of how to use technology in reminiscence and how this impacts on the reminiscence process. REMPAD is an interactive, multimedia system that contains a wide range of stimuli to prompt reminiscence amongst facilitators and groups of people with dementia.

Method: This qualitative case study adopts a constructivism philosophy and an exploratory and descriptive approach to investigating the existing presence of reminiscence and technology in care home activities for people with dementia. The benefits and challenges of using technology in reminiscence are explored in the Irish care home context. The process and experience of introducing REMPAD to seven activity co-ordinators is discussed.

Findings: There exists jeopardy in the application of reminiscence activities and technology-assisted reminiscence in care homes.. Activity coordinator definitions and understandings of reminiscence therapy and its objectives are varied. The value placed on reminiscence and its benefits is varied. Perceived benefits of the application of technology-based reminiscence for facilitators include; increasing access to the activity of reminiscence, reducing session preparation time, increasing availability of reminiscence materials, increased enjoyment in viewing reminiscence materials, increased opportunities for social interactions with persons with dementia. Challenges include the technical specification required for setup, user skill required for operation, dependency on variables to engage in reminiscence care home organisational readiness for the integration of technology into care home therapies. In some cases, technology was observed to place a dependency on having access to the resource in order to be able to engage in the process of reminiscence.

Conclusion: This thesis challenges the notion that technology-assisted reminiscence is suitable for all care homes undertaking reminiscence with individuals with dementia. The study yield rich insight into existing application and availability of reminiscence and technology resources in care homes. Insights on benefits and challenges of using ICT during RT highlight the need for clear recommendations on technology use in reminiscence for care home organisations, reminiscence facilitators and reminiscence participants.

1 INTRODUCTION

1.1 Background to study

Dementia is a progressive condition that largely affects older people, impacting on their memory, language, ability to communicate, mood and personality. The course of the illness may be gradual and sometimes subtle. As dementia progresses, the person experiencing it is commonly confused and disorientated and in many cases may attempt to leave the unfamiliar residential care setting full of apparently unknown people. Resident agitation and distress present a challenge to caregivers and highlight the difficulties of keeping people occupied. Finding safe, stimulating activities that engage people at all stages of dementia is therefore beneficial not only to the person living with dementia but also to their caregivers. Joint participation in activities is not only important for stimulating and maintaining cognitive and social skills on behalf of the person living with dementia but, previous studies have shown positive effects of activity on reducing agitation and engendering a sense of well-being in people with dementia. Activities evoking shared connection and engagement between people living with dementia and their caregivers also provide carers with opportunities to make more successful and meaningful connections with the person with dementia that can in many cases lower caregiver strain.

Person-centred care is a guiding principle in older person's care and efforts are made to have the unique value of the "person" recognised in every individual irrespective of his or her level of cognitive impairment. To achieve this care needs to be provided in such a way that the person with dementia is valued, respected, treated with dignity and supported to live well with dementia and enjoy a good quality of life. For this to happen, the environment of care needs to be improved to provide the opportunities, services and infrastructure to support the choices of people with dementia.

While at present there is no known means available to halt or reverse the symptoms of dementia, many people with dementia can benefit from psychosocial interventions. If healthcare professionals are to develop the skills necessary for a holistic approach to care delivery, education about dementia, staff training in psychosocial approaches and treatments and access to tools and resources to undertake these are essential. While psychosocial interventions can take a variety of forms, they have generally been classed into four main groupings – behavioural interventions, emotion-oriented interventions,

cognition-oriented interventions and stimulation-oriented interventions. There are good examples of practice in each of these types of approaches, but there is less evidence of the effectiveness of such interventions. The evidence base is the strongest with regard to the potential of cognition-oriented interventions, particularly with regard to the restoration of cognitive deficits through cognitive stimulation therapy (CST) and reality orientation (Spector et al., 2003).

More recently there has been an increase in interest in the potential use of emotion-oriented interventions in enhancing the quality of life for those living with dementia. Such interventions include reminiscence therapy, validation therapy and supportive psychotherapy. Reminiscence therapy is probably the most popular of these activities and involves the discussion of past events and experiences with at least one other person, often with the aid of tangible prompts such as photographs or familiar items. However, despite being relatively widely used in dementia care, evidence on the effectiveness of reminiscence remains scarce and uncertain (Woods et al., 2005b). A recent Irish Health Research Board funded study into exploring the impact of reminiscence therapy on the quality of life of people with dementia in long-stay care through the delivery of a structured Dementia education programme incorporating Reminiscence for Staff (DARES) provides a valuable addition to the small volume of trial-based work in reminiscence available in the literature. Its findings show that a protocol-based reminiscence education programme had a positive effect on the care recipient measure of quality of life (O'Shea et al., 2014b) . This is in contrast to previous research that found either no effect of reminiscence on quality of life (Thorgrimsen et al., 2002) or no significant differences in outcomes between intervention and control over time (Lai et al., 2004). Interpreting the impact of reminiscence studies on quality of life is made all the more difficult by the diversity of types of reminiscence studied and defined in the literature and types of methodologies applied.

Integrating evidenced based psychosocial approaches with medical and nursing care models of service delivery is the key to developing a new person-centred approach for people with dementia particularly in the long-term care home or nursing home environment. It is with this in mind that this study seeks to investigate the existing presence of reminiscence and the availability of technologies in general, in care home activities for people with dementia.

1.2 Motivations

Made popular in The Importance of Being Earnest, Oscar Wilde's most enduring play was the notion that, "Memory is the diary we all carry around with us" (Wilde, 1899). Our memories and our stories are important sources of our history. It is in stumbling across these moments of vivid recollection and marvellous reconnection that motivated me to venture a little further into the experience of that process for the care worker and to identify a way of bringing these stories to life again.

In a long term care environment, time can be swept away in the everyday tasks and duties of care that opportunities to really get to know and understand the person in care, the essence of what made them who they are, the strands that weave together to tell their story can be few and far between.

As a Speech and Language Therapist, facilitating communication is a core part of my everyday thinking and behaviour when working with older people. In practice however, "the push" from medical teams often comes to investigate the safety of eating, drinking and swallowing and the efficiency of this to maintain nutrition and hydration. But, "the pull" often comes from the client or their family to satisfy needs for social connection and communication. This prompted me to form a reminiscence group in an older persons care wing of an acute care hospital. The goal was to provide opportunity for social connection through reminiscence. The channel for delivering this reminiscence experience was YouTube. My first challenge to find content that was of interest to people? So I asked the group and asked the people that knew them. YouTube was just a website providing content, a reference point for engagement and creating social opportunity, an access window into the past. Getting the best content and creating a positive experience for the person with dementia out of this opportunity was the real challenge. How can I best support their reminiscence? How do I engage a person with a cognitive impairment? How can I promote social connection? How do I support emotions?

The process of reminiscence requires the activation of multiple cognitive systems including attention, semantic and episodic memory, as well as the language associated with relevant concepts, events and feelings. A speech therapist may use reminiscence to promote engagement in daily life activities and to minimize social isolation by encouraging interaction between older adults and their communication partner (Kim et al., 2006).

In many ways, bringing reminiscence principles into the work practice can serve to challenge some of the assumptions that caregivers and activity facilitators have about their working environment, the abilities of clients they are working with and their own ability as a caregiver to try something different. It can lead to new discoveries that can help bring down barriers that limit engagement in reminiscence. It is these discoveries however small they may be that can be the key to unlocking potential in the person with dementia and how the caregiver or activity facilitator interacts. It is with this second perspective in mind that this study seeks to explore the benefits and challenges of using technology in reminiscence in the Irish care home context so as to develop a better understanding of it's potential.

If healthcare professionals are to develop the skills necessary for a holistic approach to care delivery, education about dementia, staff training in psychosocial approaches and treatments and access to tools and resources to undertake these are essential. It is therefore lastly, from this perspective that the process and experience of introducing REMPAD into Irish care homes is discussed in this exploratory study on the application of technology in reminiscence.

1.3 Defining and understanding dementia

Increasing longevity in the Western world is bringing increasing numbers of people with disorders of old age. Prime among these is dementia, a disorder attributable to a number of different causes, most notably cited in the literature is the prevalence of Alzheimer's disease (AD), which is thought to account for up to 80% of cases (Terry, 2006). The emphasis on Alzheimer's *disease* as the flagship dementia can be justified in terms of it being the most frequently occurring of the family of dementia disorders, but it has certainly also served to reinforce the notion of the disease model of dementia (Woods, 2005). Although AD is thought to be the most common cause of dementia it can only be positively diagnosed at autopsy due to the nature of its associated brain pathology and it is increasingly clear from those epidemiological studies which are able to go on to study the brains of participants at post-mortem that dementia in those aged 75+ is less straightforward than the simple disease paradigm suggests. Therefore, a number of questions arise regarding dementia in advanced old age and how accurate our diagnoses of dementia are?

According to the two major internationally accepted diagnostic classification systems,

dementia is defined as an acquired global impairment of cognitive function, sufficient to impinge on everyday activities, occurring in clear consciousness (ICD-10: World Health Organisation, 1993; DSM-IV: American Psychiatric Association, 1994). Both systems require at least one area of ability to be impaired in addition to memory – memory impairment being an essential component of the diagnosis of dementia. Change from a previous level is a key part of the definition, and dementias are usually expected to show progressive deterioration. The symptoms of dementia impede people's ability to participate in most daily activities, not least of which is communication and participation in social interactions (Ellis & Astell, 2008).

The most commonly used and researched measure of dementia is the Mini Mental State Examination (MMSE; (Folstein et al., 1975). The MMSE measures cognitive function in the following domains: orientation to time, orientation to place, language, attention, visual construction, registration and recall. Patients are scored out of 30 across 7 domains and the severity/stage of dementia is defined in the following way: mild (MMSE score greater than or equal to 20), moderate (MMSE score between 19 and 10), severe (MMSE score < or equal to 9). A full copy of the MMSE can be found in Appendix A. In behavioural terms, the MMSE is known to correlate negatively with activities of daily living (Galasko et al., 1997). See Figure 1.

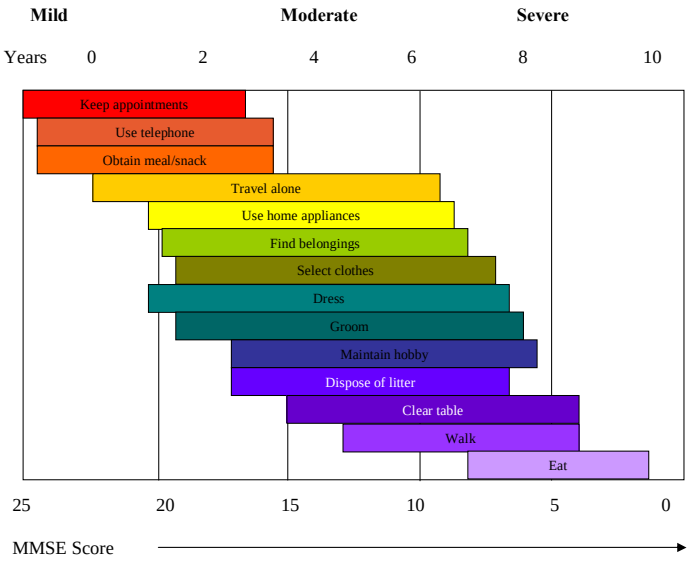


Figure 1. The natural progression of AD showing the three MMSE stages in relation to function in activities of daily living (adapted from Galasko, 1997).

The MMSE is widely used both in assessment and research as it can quickly identify any prominent cognitive difficulties. However, many people reach a point where their

dementia is so severe they cannot be assessed using the MMSE and are classified as 'severe' or 'very severe' dementia. In addition, the mild, moderate and severe stage criteria are very broad and symptoms overlap a great deal across the categories (Kitwood, 1997). Indeed, some authors argue against stage theories of dementia, asserting that a stage theory is too simplistic to illustrate the many and complex ways that dementia affects those with the illness (Bell and McGregor, 1995). The course of dementia is different for each individual and is dependent on a combination of several different factors. For example, the type of dementia, the presence of other illnesses, the level of support and care given, the age of onset, etc. all have a role to play in the trajectory of the illness. It is nevertheless useful to employ a set of criteria within which the severity and types of symptoms of dementia can be staged. Therefore, the MMSE is used as a measure throughout this thesis in order to provide the reader with a general indication of cognitive impairment severity present in the participants involved in the technology-assisted reminiscence field study phase of this research, all of whom have been assigned a general diagnosis of "dementia" in the care home medical files.

1.4 Size of dementia population in residential care in Ireland

The ageing of the population across Europe and beyond means that the number of people with dementia will grow in future decades with consequent implications for care provision and public expenditure.

Current calculations suggest that an estimated 14,266 people with dementia live in various public, private and voluntary provided long-stay facilities across the country, including 537 people aged less than 65 years (Cahill, 2012). In Ireland, all care homes are now required to register with the Health Information and Quality Authority (HIQA) however, information on the number of dementia specific or specialist care units or indeed the number of people with dementia accommodated within each facility is not available. Drawing from both the national register data and the Nursing Homes Ireland (NHI) register of care homes there are circa 600 long-term care settings for older people in Ireland. It is estimated that 63% of all long-stay residents have dementia and indeed more recent evidence suggests that 89% of nursing home residents may have some level of cognitive impairment, with 42% having severe cognitive impairment (Cahill and Diaz-Ponce, 2010). The major increase in the number of people with dementia in the country is likely to occur after the year 2021, with the numbers growing to between 141,000 and 147,000 by 2041. In line with the projected growth in the number of the oldest old

population, the most marked increase in the numbers with dementia will be amongst people aged 85 years and over. In view of the large and growing numbers of people with dementia, the development and evaluation of therapeutic interventions intended to benefit people with dementia and their professional carers and family carers is the subject of much research interest at present. It is with this in mind that this study seeks to investigate the existing presence of reminiscence and the availability of technologies in general, in care home activities for people with dementia.

1.5 Quality of life in residential care

Research in a number of countries has focused on the broad determinants of quality of life within long-stay care settings (Ball et al., 2000, Edwards et al., 2003, Kane, 2003, Murphy et al., 2006, Hoban et al., 2013). Findings emerging from this considerable literature suggest that the following elements are important in determining quality of life: health; resident autonomy; choice and control; connectedness to residents, staff, family and the outside community; the social and physical environment; and meaningful therapeutic activities, all of which reflect in some way the lived experience of residents in relation to their institutional surroundings. A recent UK report on older person's wellbeing, aimed to connect and interweave two key concerns: improving older people's well-being and increasing their involvement while providing new insights into emerging issues. What they discovered was that social connectedness was by far the most strongly voiced and frequently mentioned aspect shaping well-being for older persons (Hoban et al., 2013). Relationships and social contacts with family, friends and within communities were highlighted as essential to wellbeing. As well as offering practical support, these connections bring a sense of belonging and feeling valued to older people. They also offer the wellbeing benefits gained from fun, good conversation and laughter. The contribution of groups and clubs to wellbeing was frequently mentioned.

Traditional approaches to working with older people, while meeting important needs, are not necessarily conducive to improving their wellbeing. This is because, traditional approaches whilst addressing practical needs can also encourage passivity and dependence, as the approach is very much of a 'doing' nature. Doing things for older people rather than working with or alongside older people reinforces a lack of engagement or involvement and limits the older persons ability to think through, identify and choose. This approach can often be perpetuated by negative staff perceptions of aging and dementia, in which, offering choices to older people and encouraging them to take

more responsibility is often considered by staff as too challenging for the person with a cognitive impairment.

It has been reported that quality of life in long-term care settings in Ireland is likely to be affected by the care environment and ethos of care; expression of self and identity; and connectedness to family and community. Each of these elements, but particularly the first, is likely to influence and be influenced by psychosocial therapeutic interventions designed to impact on the morale and well-being of residents with dementia (Murphy et al., 2006).

1.6 Embodiment & "The Self" Understood

Theories that reclaim and reframe "the self" in Alzheimer's are influenced largely by a social interactionism perspective (Kitwood, 1997). Key to social theory of interactionism is belief that selfhood is socially acquired and sustained, and that the body of the social actor is a largely inconsequential feature of the "self-in-society perspective" (Turner, 1996). Thus, the self is understood not as a fixed attribute of an individual but rather as "emergent" and as crucially tied to interaction (Mead, 1970). New perspectives on "the self" argue that, to maintain that it is the socio-interactive environment alone that constitutes selfhood is to deny the significance of embodiment (Hughes, 2001, Kontos, 2003) or, more precisely, embodied selfhood (Kontos, 2005) — the idea that bodily habits, gestures, and actions support and convey humanness and individuality. Consequently, until recently in the literature, the body as a generative source of agency has largely been neglected in the discourse on selfhood in the dementia.

Kontos (2012) suggests that shifting the research discourse towards a greater recognition of the way humans are embodied, allows us to see beyond fear, dread and loss. This challenges the current prevailing Alzheimer's construct for which the assumption that only the mind relates us to the world and gives it meaning. This assumption renders the lived materiality of the body silent and inconsequential and entails a shift in the current preoccupation with treating creativity, selfhood and memory only as products of reflective thought, to treating the body as itself having creative and intentional capacity (Kontos, 2012).

Promoting selfhood is not merely a philosophical exercise; recognition of the larger human dimension of individuals with dementia has important implications for improving their quality of life and quality of care. ,

1.7 Reminiscence as a psychotherapeutic approach in dementia care

In view of the large and growing numbers of people with Dementia, the development and evaluation of therapeutic interventions intended to benefit people with dementia and their family carers is the subject of much research interest at present. Most attention has been given to pharmacological interventions, but there is increasing recognition that psychosocial interventions may have comparable value (Spector et al., 2003) and may be preferable in some contexts, for example where medication may be ineffective or have negative side effects (Livingston et al., 2005).

Reminiscence itself has diverse roots, ranging from psychotherapy (the life review), involving sometimes painful evaluation of personal memories, to oral history, which has the simpler aim of enhancing communication and connectivity in an enjoyable engaging fashion. Reminiscence, as used in this study, focuses on the latter through discussion of past activities, events and experiences, with aid of familiar audio-visual footage from the past to prompt memory, making use of the cognitive strengths of the person with dementia rather than any cognitive weakness.

Gibson (1994) distinguishes two approaches to the selection of memory triggers for reminiscence work: general and specific reminiscence. 'General' reminiscence work refers to well-prepared work that uses a variety of multisensory triggers to stimulate shared conversation on an agreed topic or theme that relates loosely to the known background and interests of the participants. 'Specific' reminiscence work refers to carefully selected triggers known to closely approximate the detailed life history of the participant. Both approaches may be used in small groups or with individuals but 'specific' reminiscence is more easily managed with individuals. YouTube has been found to support the implementation of general reminiscence work (O'Rourke et al., 2011b, Harley and Fitzpatrick, 2008)

Many older people with dementia suffer from reduced psychological well-being and reminiscence has potentially a lot to offer them, particularly in relation to maintaining identity and a more complete realisation of the self. It also may assist carers in developing

a deeper attachment and connection to the person with dementia, thereby enhancing personhood and the whole caring experience. The aim of using reminiscence with people with dementia is to stimulate the person, provide enjoyment and foster a sense of achievement and self-worth. The anticipated outcomes for people with dementia of using reminiscence are improvement in the person's quality of life, behaviour and mood (Kim et al., 2006).

Reminiscence can be both planned, i.e. where reminiscence is the specific focus of the interaction with the person with dementia, and spontaneous, i.e. the opportunistic use of reminiscence while providing nursing care, the application of planned technology-enabled reminiscence is explored in this study. In this study, reminiscence is viewed as a group interaction (as determined by the capacity and needs of the individual) between persons with dementia and a staff member activity co-ordinator.

1.8 Information and communication technology (ICT) and reminiscence

Advances in technology create increased access to tools for health-related interventions. ICT can have benefits for both the person with dementia and their carer. Traditional reminiscence work includes the use of props, videos, sound, music and written material, which can be time consuming, particularly if it necessitates visiting a library or museum or requesting donations to find a specific items. ICT can improve methods of access to reminiscence content as it allows for media to be accessed almost instantaneously (photographs, music, video clips), on a user-friendlier interface (Yasuda et al., 2009). ICT can provide improved audio-visual quality to engage the older person. Computer applications such as Google and YouTube can assist in finding general reminiscence images and clips that interest people, including local landmarks, historical buildings and favourite holiday destinations. Multimedia content by its nature is multi-sensory and can produce a great deal of interest and motivation amongst people with dementia by helping to provoke and maintain connection.

ICT can be a practical way to support the delivery of RT, whether through permitting individuals to stay in their local communities while communicating with others at a distance by allowing for multiple users or interacting through dynamic methods. Two reviews have addressed systems that used ICT to deliver RT and concluded that using ICT is feasible for RT in a population with dementia (Subramaniam and Woods, 2010) and can have benefits such as, providing access to rich and engaging multimedia reminiscence

materials, opportunities for people with dementia to participate in social interactions and take ownership of conversations, and a reduction of barriers due to motor deficits during interactions with media (Lazar et al., 2014) . However, the body of evidence for ICT RT interventions is limited by small sample sizes, limited description of the RT method used, and lack of details on how outcomes varied. These factors, as well as the high variability in technologies used and diverse aims make a quantitative determination of how different aspects of technology contribute to the delivery of RT difficult.

Understanding in depth how different forms of ICT have been used and can be used to benefit RT can lead to an understanding of how different technologies impact on the delivery, quality, experience and success of an RT intervention.

1.9 The REMPAD system

REMPAD is a software system designed to facilitate group RT for people living with dementia. The REMPAD system provides the facilitator with an automated means of accessing video clips for group-based reminiscence discussion with individuals with dementia. The video clips are recommended based on the social interest profiles of the group members. The system was designed to increase the accessibility and efficiency of delivering group reminiscence intervention for activity facilitators in the care home environment, and this study seeks to understand the impact of this technology on the process and experience of reminiscence in the Irish care home context.

REMPAD uses intelligent classifiers to recommend publicly accessible videos from the Internet (e.g. YouTube) based on the group members' profile, interests and hobbies (Bermingham et al., 2013a). The System also learns and adapts to group preferences with continued usage. This is obtained through short feedback, which the facilitator fills out after each video clip and again at the end of the RT session. It is anticipated that by automatically recommending video clips that are relevant to the group member's experiences, the facilitators can focus on the group members' conversations, rather than the technology.

Fig. 2. The REMPAD System: facilitator view on tablet (left) and group member's view on large TV monitor (right).

The system has two hardware components: (1) a tablet computer, such as an iPad, which the RT facilitator interacts with, and (2) a TV monitor which displays video clips to the group members (see Fig. 1). Video clips are curated and annotated to ensure only high quality videos are displayed in the RT sessions (Bermingham et al., 2013b).
There are three main functions of REMPAD:

1. *Participant profile* – Personal information is recorded on a one off basis for each person who attends an RT session. This includes life history (age, locations of residence etc.) and their personal interests (music, fishing etc.) and is used to inform the system about which cues are likely to stimulate conversation.
2. *Video recommendations* – Once the RT facilitator logs onto the system they can begin an RT session. The aim is to provide cues to stimulate reminiscence and conversation. A binary choice of video clip is presented to the facilitator with video annotation. The facilitator can verbally relay this choice to the group. If one of these options acts as a cue, the facilitator can select it to play on the TV screen. If the facilitator believes the group would benefit from seeing a choice, the facilitator can show a still image of both video clips side-by-side on the TV screen. If one of the options prompts reminiscence, the facilitator can select the video for the group to view. If neither is appropriate the facilitator can view the next two recommended videos. The videos are presented in a ranked order according to the group's aggregated profile.
3. *Video Feedback* – While a video is being viewed by the group participants, the facilitator has the option to complete a short feedback from where they can rank on a 5-point scale the group satisfaction with the video, and also whether the video stimulated a positive, neutral or negative reaction for each participant.

This information has potential value for both the facilitator's reports, and also to improve automatic recommendations.

4. *4*. *End Session Feedback* – Enables the facilitator to record subjective impressions on the level of participant engagement and satisfaction with the reminiscence content displayed by the system for the reminiscence session.

Additional functions, such as providing access to favourite and previously viewed video clips are also available.

1.10 Purpose of the study

This study seeks to explore the existing presence of reminiscence and the availability of technologies in general, in care home activities for people with dementia. The study then seeks to explore the benefits and challenges of using technology for reminiscence in the Irish care home context so as to develop a better understanding of it. Lastly, the study describes the process and experience of introducing REMPAD into Irish care homes. The care worker and person with dementia experiences of this novel interactive computer-based reminiscence activity system are described.

It is important to highlight at this point that this thesis positions itself within a larger body of work undertaken to research and develop of the REMPAD reminiscence system for use by group reminiscence facilitators. The undertaking of a user-interaction design process with care home managers and nurses, health care workers, speech therapists, activity co-ordinators and carers has preceded the thesis. The findings from this phase were compiled and published in an earlier paper describing the design and field evaluation of the REMPAD system (Yang et al., 2013). This thesis is an exploratory and descriptive account of the stages of REMPAD user design to piloting in six Irish care homes. It retrospectively explores a number of inter-related objectives set within the context of utilizing a technology-based system REMPAD to enable therapeutic group reminiscence activity. These objectives relate to:

1. *Background and Context: To develop an understanding of* current practices around reminiscing and the context of reminiscence in Irish care homes.
2. *Perspectives:* To *explore* health care worker perspectives on engaging with reminiscence and technology.
3. *Process & Organizational Fit: To examine* the role of technology in reminiscence and to illustrate through case study how care workers engage with technology-based reminiscence and the implications for reminiscence in care homes.

1.11 Significance of the study

Emotion-oriented interventions like reminiscence aim to improve emotional and social functioning and as a result impact on the quality of life of people with dementia living in care homes. Providing resources, tools, training and education to care staff to support residents is an on-going process and opportunity for change in our rapidly developing technological age. As is enabling care home staff to see the functional potential of their residents rather than the limitations of the individual. Great care and attention is required when making decisions on the meaning, form and structure of reminiscence to be used in care home environment. When technology is involved this may assume the need for new skill learning or heavy investment of staff time in training or costly expansion of hardware infrastructure. These can pose as negative influencing factors on a care home stakeholder's uptake of new ideas and resources. This brings us to the genesis of this work, which is a desire to learn and explore more about the presence of reminiscence and general technology in activities and what happens when the two are mixed together. This research employs a case study approach to better understand the issues impacting on the integration of technology-enabled group reminiscence software into care home programmes of activities.

1.12 Thesis organisation

The thesis is presented in 6 chapters including this Introduction chapter. The outline of the thesis is as following:

Chapter 2 – explores the social impact of dementia on both the person and the formal caregiver in the care home environment. I introduce the concept of person-centred care approach to dementia care and develop the discussion further into emerging theory of relationship-centred care approaches. I discuss reminiscence as a method to engage and communicate with a person with dementia and the influence on the care home resident - caregiver relationship. Current challenges in reminiscence practice are then explored followed by the emergence of technologies in reminiscence for people with dementia and associated challenges with integrating technology into reminiscence.

Chapter 3 – outlines the philosophical assumptions of constructivism guiding this research. The theoretical rationale for the use of case study methodology to best answer the research questions is then provided. The main focus of this chapter is to demonstrate an understanding of this methodology as influenced by constructivism and its relevance

to the research topic. I then outline the data collection and data analysis methods used. Lastly the chapter describes the process of seeking an ethical approval for the present research and outlines some ethical considerations related to dementia.

Chapter 4 – presents the findings for each of the three questions asked about the case. Each question commences with the background and contexts of the participants engaged. Survey data, interview data and document review data are combined to present chronological accounts of this explorative study on the presence of reminiscence and the presence of technology in care homes and the influence of REMPAD on reminiscence process and experience. Emerging issue questions are highlighted throughout the findings for each question and the experience of using technology in reminiscence practice and the person-centred care approach. For each research question, findings from the multiple data sources are triangulated and subjected to analysis with common themes emerging. They are organised around the main aim of the study: evaluating what happens when a technology tool to support group reminiscence for people with mild to moderate stage dementia, is introduced to care home activity coordinators. I will highlight how the findings are embedded in the experiences of the activity coordinators and the care home managers and the diverse realities of each. Furthermore, the findings presented make suggestions on how contextual factors can impact on the presence of reminiscence and as a result technology can both support and hinder the undertaking of reminiscence.

Chapter 5 – I return to the original research questions and address them in the light of findings reported in Chapter Four. I provide a general discussion on the influence of contextual factors in the care home environment on the presence of reminiscence and technology and the implications of using technology in reminiscence therapy in this setting.

Finally, in **Chapter 6** I conclude the thesis by reflecting upon its strengths and limitations. Based on the findings, I provide recommendations for future research into reminiscence and technology enabled reminiscence and its application in care home activities.

1.13 Summary

In this introduction, the importance of delivering psychosocial interventions in the early to mid-stages of dementia has been presented from the perspective of supporting the preservation of communication and social engagement for the person with dementia residing in a care home environment. The concept of reminiscence as a

psychotherapeutic approach in dementia care was introduced and I set the scene on the emergence of health technologies to address these psychotherapeutic goals. I provided an introduction to the REMPAD technology and briefly outlined the objective of the REMPAD tool to support group reminiscence therapy. Investigating the potential for incorporating technology into reminiscence therapy to enhance person-centred care for people with early to mid-stages of dementia has been presented as motivation for the study. I have also stated the aims and objectives of the research and described the overall significance of the study.

2 LITERATURE REVIEW

This chapter presents a critical discussion of previous research in the field of reminiscence therapy and the application of technology in reminiscence. The exact gaps in the research on reminiscence are outlined to provided the specific rationale and justification for the aims and objectives of this study. The opportunity for technology in reminiscence is then reviewed and this chapter concludes by considering the implications of using REMPAD as a means of supporting people with dementia to maintain communication and social interaction.

2.1 Reminiscence

Reminiscence has been defined as a 'process of thinking or telling others about one's past experiences' (Cappeliez et al., 2005). As a therapeutic intervention, reminiscence is 'using the recall of past events, feelings and thoughts to facilitate pleasure, quality of life, or adaption to present circumstances' (Dochterman and Bulechek, 2003). Reminiscence therapy involves the 'discussion of past activities, events and experiences with another person or group of people, usually with the aid of tangible prompts such as photographs, household and other familiar items from the past' (Wang, 2004).

Research has generally indicated that reminiscence therapy has a variety of effects on the health and wellbeing of older adults, such as decreasing depression (Stinson and Kirke, 2006), self-health perception (Wang, 2004), mood status (Wang, 2005), sense of mastery (Bohlmeijer et al., 2005) and transcendence, which has been negatively correlated with depression. Some studies have indicated similar results for clients with dementia, while others have not (Verkaik et al., 2005).

The functions of reminiscence can be wide-ranging, the reminiscence function scale (RFS) (Webster, 1997) focuses attention on the function served by the reminiscence undertaken. The reminiscence functions identified include 'identity', which maps onto integrative reminiscence which seeks to achieve self-worth, coherence and reconciliation with one's past; 'teach/inform' parallels with informative reminiscence which teaches and entertains others and may also be seen as storytelling which is reported to have positive effect on adaption because it provides a valuable social function in terms of oral history and enhanced self-esteem. 'Reminiscence for conversation' refers to communicating personal memories in an interactional context with no evaluative or

instructive intent (Webster, 1997). 'Boredom reduction' refers to memories used to fill a void of stimulation or interest, whilst 'intimacy maintenance' involves keeping alive the memory of a significant other who is separated from the reminiscence most typically on account of death. 'Reminiscence for problem solving' refers to bringing past experiences to mind in tackling present problems. 'Death preparation' refers to using memories to come to terms with one's finitude and finally, 'bitterness revival' pertains to ruminating on memories of difficult life circumstances (Webster, 1997). With these wide range of functions it is important to be aware that although reminiscence often involves pleasant memories to promote enjoyment, it can also involve serious or sad memories for therapeutic or cathartic purposes (Parker, 2006).

The existing research on trials-based reminiscence therapy for people with dementia has been summarized in the form of a Cochrane review (Woods et al., 2005a). The Cochrane review on reminiscence therapy for people with dementia (Woods et al., 2005) identified only four randomised controlled trials (RCTs). Each examined different types of reminiscence work; all were small-scale samples with varying types of reminiscence undertaken. The trials together identified significant improvements in cognition and mood four to six weeks after treatment, and stress in caregivers who participated with the person with dementia in a reminiscence group. However, the review concluded that 'in view of the limitations of the studies reviewed, there is an urgent need for more quality research in the field'. Subsequent, larger, studies of reminiscence groups in both institutional (Wang, 2007) and community settings (Tadaka and Kanagawa, 2004, 2007) report some positive findings in relation to cognition and mood. There appears to be potential for reminiscence work to have positive outcomes on people with dementia. Other studies, on the use of reminiscence among elderly with dementia have reported minor improvements in social functioning and less problem behaviour(Kasl-Godley and Gatz, 2000) and no difference in agitated behaviour (compared to a group undergoing stimulation therapy)(Baillon et al., 2004).

The dearth of evidence on the effectiveness of reminiscence therapy is also reflected in the National Institute for Health and Clinical Excellence (NICE) guideline on the management and treatment of dementia (NICE, 2006). It found insufficient evidence to recommend that reminiscence should be routinely offered to people with dementia, although its potential impact on mood of the person with dementia was highlighted.

Despite the weak international evidence on reminiscence effectiveness in relation to wellbeing and quality of life, reminiscence remains a very popular form of engagement between staff and people with dementia in residential care settings. It has been found that group-based reminiscence therapy has significant efficacy in the treatment of depressed mood and apathy in nursing home residents with mild to moderate stage dementia (Chia-Jung Hsieh, 2010). A randomised controlled study into group-based reminiscence therapy versus general group-based intervention found that after 6-weeks of intervention, engaging in a group-based activity enhanced wellbeing and engaging in group-based reminiscence therapy enhanced memory performance (Haslam et al., 2010). Generally in the research there has been little indication of cognitive improvement from reminiscence therapy and as the method of reminiscence engagement was not clearly reported on in the study these findings from small group study with a total of 79 participants divided into 3 groups must be interpreted with caution.

There has however, been more evidence growing in support of improvements in behaviour, wellbeing, social interaction, self-care and motivation (O'Donovan, 1993, O'Shea et al., 2014b). The DARES study, a randomised controlled trial with blinded outcome assessments at 18-22 weeks, provides valuable qualitative information based on face-to-face interviews with residents and staff, highlighting outcome gains on Quality of Life for people with dementia (O'Shea et al., 2014b). The main component of DARES is a structured education reminiscence-based programme for staff which is delivered at the level of the long-stay residential unit to dyad combinations of nursing and care staff who are directly engaged in the care of specified people with dementia. Implications from this study clearly support that reminiscence, when implemented consistently and uniformly, has the potential to improve quality of life for people with dementia in long-stay care and impacts favourably on staff and their relationship with residents. Publication of the results from the secondary outcomes on agitation, depression and carer burden as captured in the Dementia Education Programme incorporating Reminiscence for Staff (DARES) study are awaited.

Few studies have investigated the effect of reminiscence on nursing home staff. In two studies where reminiscence was only one of several approaches implemented in the intervention group, small improvements were found in job satisfaction and stress levels (Finnema et al., 2005). Reminiscence has also been reported to increase the nursing staff 's knowledge of the residents' life history, leading to the staff finding it easier and more

enjoyable to talk with the residents about personal topics (Baines et al., 1987, Jonsdottir et al., 2001). In a randomized intervention study from Denmark investigating the consequences for nursing home staff of integrating group reminiscence intervention, staff in the reminiscence intervention group experienced greater satisfaction with professional roles and developed a more positive view of the residents (Gudex et al., 2010).

The DARES study investigated the impact of structured education based reminiscence training on resident quality of life and care staff burden, qualitative data suggested staff were very supportive of the intervention and saw it as having a very positive effect on their relationship with the person under their care. In face-to-face interviews staff talked about getting to know and understand the person with dementia, sometimes for the very first time, and now finding different ways to relate to that person. However, in instrumental assessment of care staff burden positive feelings expressed did not show up. This may be down to the sensitivity of the instrument used but, what is encouraging are the qualitative reports of improved care staff connection with residents in the per-protocol intervention group after engaging in a reminiscence education and training (O'Shea et al., 2014a). Connections and relationships between staff and residents can be enhanced through the reminiscence process, leading to a more person-centred approach to care.

In the UK, REMCARE, a large controlled pilot study with 488 individuals with mild to moderate dementia was undertaken to evaluate the effectiveness and cost-effectiveness of joint reminiscence therapy groups for people with dementia and their family caregivers as compared with usual care (Woods et al., 2012, Melunsky et al., 2014). The intervention consisted of joint reminiscence groups held weekly for 12 weeks followed by monthly maintenance sessions held once a month for 7 months. The sessions followed a treatment manual and were led by two trained facilitators in each centre. The primary outcome measures were self-reported quality of life for the person with dementia and psychological distress for the carer. Secondary outcome measures included autobiographical memory and activities of daily living for the person with dementia, carer stress for the carer and mood, relationship quality and service use and costs for both parties. However, the intention-to-treat analysis identified no differences in outcome between the intervention and control conditions on primary or secondary outcomes. Interestingly, carers of people with dementia allocated to the reminiscence intervention reported a significant increase in anxiety at the 10-month end point. Compliance analyses

suggested some benefits for people with dementia who attended more reminiscence sessions; however, carers attending more groups showed increased caregiving stress. Use of health- and social-care services was modest, with no significant difference in service use between the groups. The negative aspects of family carers' experiences included the lack of respite from their relative, the lack of emphasis on their own needs, and experiencing additional stress and guilt through not being able to implement newly acquired skills (Melunsky et al., 2014). In the research context of the REMCARE study, facilitators were required to develop group cohesion even, as in one group, where there were group members with an antipathy arising from contacts with each other well before the group started. Logistic issues, such as meeting times, ease of access with travel and transport were also inflexible in the research context and, were potentially stressful for some as was the demand on the family members to supply the reminiscence content. In a few cases, the person's initial interest waned between the time from when they agreed to take part and the time when the group commenced (Melunsky et al., 2014).

Since the 2009 publication of the National Quality Standards for Residential Care Settings for Older People in Ireland (HIQA, 2009) the standards outline that one aim of nursing home care should be to target social and recreational programs for residents that are appropriate to their level of function and which offer them meaningful involvement in their environment.

In relation to reminiscence, on a practical administration level, many problems and frustrations exist in the organisation and delivery of the reminiscence activity. The available studies have been good at presenting the contents of intervention programmes, but usually fail to outline how the interventions were conducted (communication strategies, interpersonal style, feedback mechanisms, staff training issues). Indeed, if these issues were better delineated, it would help therapists develop, refine and improve the manner in which they implement their treatment programmes (James et al., 2003).

Identifying relevant content to use in reminiscence therapy can be a time-consuming and resource-intensive task. The scale of this is likely to depend on many factors, not least of all they type of reminiscence undertaken and purpose. This has not yet been systematically reviewed in research. Therapy facilitators keep either paper or mental records of a person's life history and interests so that they may make an informed decision about which content would likely be beneficial to use in a reminiscence session.

Reminiscence participants and their family carers are also encouraged to develop scrapbooks, known as life story books or to donate objects and artefacts from the person's life interests. These methods have significant drawbacks in terms of scalability because of the demand on the volunteer resources necessary to produce them; time, access to personal materials, motivation and interest. In the UK, it is not uncommon for museums to provide reminiscence services. This can include provision of loan boxes; training courses for carers and support workers and in some cases they even provide facilitated reminiscence sessions. For example, in 2012 Liverpool Museums (through its House of Memories project) ran 20 workshops throughout the region and Reading Museum regularly loans out its thirty or so memory boxes to health and social care professionals through a yearly membership scheme which includes a place on a training course for one member of staff (Burke et al., 2012). The annual cost is £60 per organisation, with additional staff being charged at £40 per person. The boxes are delivered by Reading Mobile Library Service to the loan site (Burke et al., 2012).

In summary, it is also essential to recall that persons with dementia live most fully in the present moment. Therefore, the most important evaluation is how the group activity affected their personal situation and responsiveness at that particular moment (Bowlby, 1993). Evaluation of how reminiscence participants respond to materials and activities presented to the group must be on going in the care environment, this helps to understand people's current practices around reminiscing and supported by empirical study and theories of memory will help with new reminiscence programme designs.

2.2 Technology and reminiscence

The potential for computers to inform compensatory strategies against cognitive impairment has been noted since at least the early 1960's (Englebart, 1963) and the term 'cognitive prosthesis' has been used to describe such human/compensatory interaction. Indeed advances in computer engineering and neuroscience research now prefer the concept of an implanted 'brain prosthetic'… A chip that mimics neurons, firing up the memory… a potential remedy for the ravages of Alzheimer's and stroke related language deficits… But this is clearly very early days…"At least in principle it looks as if a chip imitating some functions of the hippocampus could be implanted in the future (Berger et al., 2005).

With the ever-accelerating advance of computer technology, an expanding global cultural allied to lowering hardware and software costs, computers have become an indispensable human tool and subsequently an equally important component in the development of assistance technology. The development of successful computer based prosthetic devices will depend greatly on the seamless integration of this technology into our living and working environment. Crucial to this process is the positive progression of the human/computer relationship and a 'human centred approach' in developing the interface with contemporary and emerging technologies (Berger et al., 2005).

Mulvenna et al. (2009) define reminiscence systems (RS) as the application of technology to facilitate reminiscence work. These range from basic multimedia reminiscence work incorporating videotapes or DVDs to computerised reminiscence work including Internet networking technologies. Systems have now been described with a variety of aims including: assisting reminiscence (Alm and O'Mara, 2001); facilitating the person with dementia and caregiver to conduct reminiscence therapy sessions (Sarne-Fleischmann and Tractinsky, 2008); as a support system for reminiscence and maintaining episodic memories (Hallberg et al., 2009); helping to engage in meaningful conversation (Alm et al., 2003); prompting conversation (Yasuda et al., 2006); recollecting and reinforcing memory via multimedia family histories (Cohene et al., 2004); and increasing engagement compared to traditional reminiscence (Gowans et al., 2004).

Computer based reminiscing is a relatively new field and has been discussed in the literature since 2001 with the research and development of the Computer Interactive Reminiscence and Conversation Aid (CIRCA) which is a system consisting of touch screen computer with a variety of media like generic photographs, music and video. The main positive effects from using CIRCA compared to traditional reminiscence therapy include reduced effort on the carers' part to initiate conversation by having access to a larger variety of topics during conversations. CIRCA supports reminiscence using generic photographs instead of personal images. As a result CIRCA sessions studied in care homes were found to be more conversational than traditional reminiscence sessions, with each person contributing an equal amount and sharing control of conversational direction (Alm et al. 2007). CIRCA computer touch screen technology can be used by people with dementia and their carers and relatives in promoting conversation in one on one or group situations (Astell et al., 2010).

To date two systematic reviews on the use of technology in reminiscence therapy have been undertaken (Subramaniam and Woods, 2010, Lazar et al., 2014). Almost all of the studies on technology and reminiscence were case studies of preliminary or pilot work with sample sizes ranging from 1-23, this signified the early state of the research in this area. Due to the study heterogeneity a meta-analysis of the studies was not possible. The feasibility of the reminiscence systems (RS) studied were found to be well established and most systems comprised of personalised biographical materials, only a few RS comprised of more general material, and would lend themselves as memory triggers to enhancing conversation in small groups, or in pairs with care workers. Outcomes were diverse and included usability, acceptability, interactions between people with dementia and care-givers or staff, and concentration and distraction while using the system. Few studies looked at health outcomes, such as impact on mood and cognition, or a comprehensive evaluation of wellness or engagement, also signifying the early state of the research (Lazar et al., 2014). Some benefits of RS were found to be access to rich and engaging multimedia reminiscence materials (Tolson and Schofield, 2012), opportunities for people with dementia to participate in social interactions and take ownership of conversations (Astell et al., 2010), and a reduction of barriers due to motor and sensory deficits during interactions with media (Benveniste et al., 2010, Shik et al., 2009). The reviews found that the RS target users varied from being, the caregiver, to caregiver as a facilitator or proxy, to the older person as the independent user (Alm et al., 2007, Kuwahara et al., 2006, Noriaki et al., 2006). Different categories of caregivers are also described, these include care staff (Noriaki et al., 2006, Kuwahara et al., 2006) and family members (Alm et al., 2007) who support the person with dementia interacting with the technology system. Given that some systems are provided as a caregiver support tool, some as an activity tool for direct user engagement; the problems these technologies are focused on solving therefore also vary from system to system. For instance, in Japanese care homes, a networked reminiscence therapy technology has been applied as a response to the problem of shortage of care attendants, where only a limited number of residents can receive the benefits of reminiscence therapy (Noriaki et al., 2006). This system combines IP videophones with a photo- and video-sharing mechanism based on web technology. It was tested in an experimental setup in a hospital to examine whether patients with dementia could communicate with therapists by videophone. Following this, a field trial of networked reminiscence therapy with a more realistic situation where remote volunteers communicated with people with dementia in the care home by IP

videophones connected by broadband network was undertaken. Their small-scale trial results, whilst interpreted with caution, have found that people with dementia could communicate with therapists by videophone and that networked reminiscence sessions were generally as successful for individuals with dementia as face-to-face reminiscence sessions (Kuwahara et al., 2006).

Collecting a large amount of materials may make it difficult to find specific items: however, using personal computer eliminates storage and sorting problems, and enables us to use photos, music and movies simultaneously (Tamura et al., 2007). Some RS used technology so that a single device or system could work for different people. One way systems did this was by providing individuals with their own log-in. Sarne-Fleischmann et al. (2011) accomplished this through selection on the touch screen. Two other papers proposed using USB sticks to store personal reminiscence materials, such as photographs, for use with a shared television (Wallace, Thieme, Wood, Schofield, & Olivier, 2012) and a shared laptop (Caprani et al., 2005). USB sticks can prevent requiring someone to memorize a password. However, remembering to carry around the USB device could be an issue for cognitively impaired individuals or overwhelmed staff. In addition to separate log-ins, a second way RS identified by the systematic review promoted tailoring to diverse interests was by having a large collection of materials organized in ways accessible to users with cognitive impairments. This arrangement was observed to allow individuals with dementia to take more ownership over the topic of conversation than a physical set of materials brought in by a therapist. Alm et al. (2004) reported surprise at the level of initiative taken by the individuals with dementia to operate their CIRCA system and, as a result, made some ergonomic design modifications since the system had originally been designed for caregivers to operate (Alm et al., 2007, Alm et al., 2004). Using special computer software such as CIRCA may make it easier to conduct reminiscence therapy; however, this depends on the users familiarity with personal computer use.

In Japan, many nursing homes lack human resources; therefore, the personal computer has been turned to for reminiscence therapy (Tamura et al., 2007). In a study carried out to decide if reminiscence using personal computer has the same effect as conversational therapeutic reminiscence therapy the authors concluded that participants made positive replies about both images and no significant difference was seen between the two methods of reminiscence therapy (Tamura et al., 2007).

Mulvena et al. (2011) conducted another small case study with 19 participants, including a control group, to measure the impact of card (traditional) versus device–based (iPad) reminiscing of photographic images (Mulvenna et al., 2011). The amount of time spent with each image was used as a measure of impact, and qualitative information on reminiscing using cards versus devices was gathered. The research found no major difference between device-based and card-based forms of reminiscing of photographic images. It found no significant issues in using devices for reminiscing, and identified that the participants had positive expectations of using both cards and devices for reminiscing. Interestingly, participants took longer on average for photographs mounted on card than for device-based photographs. However, perhaps the most important outcome of this study was that the participants did not reject the device-based reminiscence experience. Whilst they spent shorter times viewing photographs on the devices than those mounted on card (which could be for a variety of reasons), the results from the surveys indicate that they enjoyed using the device. When designing the study, the authors' hypothesised that participants would relate more strongly to images of their children than to generic or shared experience images that did not have a family member included. This was not the case. There was no difference in how the participants viewed the three types of images (personal, generic and shared experience) (Mulvenna et al., 2011).

Important issues that need to be kept in mind when conducting reminiscence work using ICT have been highlighted in a systematic review of the therapeutic use of ICT in reminiscence work (Subramaniam and Woods, 2010). These include maintaining the identity of the person with dementia and encouraging communication with other people with dementia and with care-staff. When reminiscence work is conducted to encourage communication (particularly within group settings) then the materials do not need to be personalised but they have to reflect the participants' preferences and interests (Mulvenna et al., 2011).

The influence of the reminiscence medium on the reminiscence process and the effects produced by various media is an interesting question that was raised over 10 years ago in research (Newall, 2002). With videos it was reported that clients were only able to strongly identify with them when they triggered specific personal memories, whereas songs and photographs were more widely appreciated. In contrast, though most of the videos and photographs and all of the songs were able to spur conversations (Newall, 2002). Attention was held the longest by songs, which were particularly enjoyed when

played repeatedly with everyone singing along. Generally it was found that multimedia presentation produced a great deal of interest and motivation amongst the people with dementia, highlighting the benefits that ICT has in being able to access and present a range of media simultaneously. There remains, significant need to evaluate the benefits of different formats of multimedia content for different group reminiscence therapy contexts and with different profiles of dementia severity.

However, the flexibility of ICT or computerised reminiscence work could result in improvements to traditional reminiscence therapy practice by making them less demanding on carer resources, and providing a more user-friendly interface than e.g., the traditional photograph album (Yasuda et al., 2009), with its small photographs and bulky nature. The important thing to note was that whilst in many cases technology does not change the information obtained - for instance, carers might previously have obtained pictures and information from the local library -the use of ICT made the process much easier and quicker, 'more instant'. The technology also means that additional formats, such as films or music, can be added to the range of options available (Hicks and Miller, 2012).

If reminiscence systems are used in a group setting then projection systems and/or large screens and speakers or amplifiers will be required (Shik et al., 2009)and group leaders will need to be trained to not only facilitate discussion and allow space for participants to share stories and enjoy the narratives but also in managing the technical set up. Using technology to compensate for motor and sensory deficits has been reported to allow participants who might otherwise be excluded (due to physical or sensory impairments) to engage in RT with the group (Shik et al., 2009).

In relation to the organisational infrastructure necessary to support the integration of technology into reminiscence practice in care homes, more than eight out of ten UK care homes offer residents no access to the internet according to a recent survey by carehome.co.uk (McArdle, 2013). Fewer homes again, provide Wi-Fi, which is a necessary essential to using a tablet or iPad to full potential. For those that do have access to the internet, feedback from the Social Care Institute for Excellence UK, revealed that in some cases managers and staff had struggled to help service users with dementia make full use of the technology available to them, again this was discovered to be primarily due to the lack of guidance available to support health and social care staff obtaining information

about and integrating technology into everyday dementia care activities (Miller, 2011, Hicks and Miller, 2012), despite the publication of resource guides with reference lists of technology applications suitable for social care providers who work with people with dementia from early diagnosis to more advanced conditions (SCIE, 2012).

It is these observations and questions on how ICT can enhance the process, experience and outcomes for caregivers and older people with dementia in residential care settings that is the focus of this research. The REMPAD reminiscence was designed to support group-based social interaction using general reminiscence stimulus derived from the social interests, geographical locations and general episodic event occurrences from the group's lifetime.

2.3 Organisational influences in residential care

The 'person-centred approach' to dementia situates the person with dementia at the centre of all aspects of caregiving. The focus is on identifying and meeting the needs of the person, in contrast to the medical model that focuses on identifying and treating symptoms. Consequently the person-centred approach in dementia care has stimulated a great deal of work aimed at understanding the subjective lived experience of people with dementia and it has been stated that for the application of care to be effective it must take as its starting point the person's experience of striving to make sense of the world (Brooker, 2004). It is increasingly acknowledged that the person with dementia can express views, needs and concerns even in the later stages and that the challenge now is to find effective ways of communicating in order to hear the voice of the person.

In considering how best to implement person-centred culture changes into care homes it has been observed that typically, person-centred culture change interventions are multifactorial, comprising elements of environmental enhancement, opportunities for social stimulation and interaction; leadership and management changes to introduce democratised approaches to decision-making that involve residents and staff; staffing models focused on staff empowerment; and assigning residents to the same care staff and an individualised humanistic (rather than institutionalised) philosophy of care (Brownie and Nancarrow, 2013). Following a systematic review on person-centred care interventions with residents in aged-care facilities, it was concluded that the complexity of the interventions and range of outcomes examined makes it difficult to form accurate conclusions about the impact of person-centred care interventions can be adopted and

implemented in these facilities (Brownie and Nancarrow, 2013). Furthermore, of the few negative consequences to the introduction of person-centred care models, such as increased falls risk, it has also been suggested that the introduction of person-centred care is not always incorporated within a wider "hierarchy of needs" structure in the care home, where safety and physiological need are often met before higher level needs (Chenoweth et al., 2009). Superficial culture change interventions, such as environmental enhancement only in the care home , fail to address the need to enhance residents' social capacity. This social capacity is best served through close and continuing relationships with staff, other residents and children and their engagement in meaningful activities that improve their quality of life. Person-centred interventions challenge traditional models of care and management because they are based on a collaborative, whole-of-facility management system. These models aim to empower the staff and place decision-making authority as close to the resident as possible. They "flatten" the nursing organisation hierarchy by adopting a decentralised team method of care delivery that puts the resident at the centre of the facility (Keane, 2004, Barba et al., 2002). Placing the locus of decision-making is with the resident, which ensures that his/her interests and wishes are respected and valued and as a result nurturing relationships between frontline staff and residents are of central importance in these culture change approaches (Barba et al., 2002).

The successful implementation of culture change models requires good leadership and stable management; strong teamwork, efficient communication systems; and an investment in staff training and education about culture change (Barba et al., 2002). The Eden Alternative, is an example of a person-centred approach to deinstitutionalising long-term residential aged care is based on ten principles, which provide a blueprint for person-centred, organisational culture change and reform (Thomas and Johansson, 2003). The final principle emphasises the importance of 'wise leadership' in realising effective, sustainable culture change. Resistance towards change from senior leadership is the most frequently cited barrier to adopting culture change followed by perceived cost and concern about compliance with regulatory requirements (Miller, 2010). More outcomes from the success, sustainability and reproducibility of person-centred care interventions that can assist in promoting positive person-centred organisational cultural change that is sustainable are needed.

Staff turnover can impact significantly on the maintenance of person-centred care philosophy and practices in a care home (Coleman et al., 2002). Information about staffing profiles in Irish care homes, such as audits of staff to resident ration, rates of staffing turnover and stability of management, would provide insight into existing practices, potential weaknesses, opportunities and threats to the organisational culture and capacity of the care home to adopt and implement sustainable person-centred intervention practices.

The National Quality Standards for Residential Care Settings for Older People in Residential care settings in Ireland residing in dementia specific settings (HIQA, 2009) have advised on the implementation of measurements to not only, assess the needs of vulnerable older people in residential care settings but, to also develop appropriate care plans to meet these needs. These new regulatory standards create a demand for care home organisations to engage in assessing, planning, implementing and evaluating opportunities for engaging residents and staff in person-centred care practices. Technology

2.4 Technology and opportunity for social engagement?

In a systematic review of the use of technology for dementia, Lazar et al. (2014) report that current reminiscence work with people with dementia is essentially interpersonal and social. The development of reminiscence systems offers some opportunity to explore the potential of private versus social reminiscence work, individual versus group work and to examine how specific or general reminiscence cues and memory triggers need to be for people with dementia and the types and content of media beneficial at different stages of dementia. Technology has great potential to provide personal support for people with dementia, if it's innovatively designed and also enlists potential users in the development process (Lazar et al., 2014) .

Deterioration in communication is a prevalent symptom in dementia and therefore carers can face significant challenges when attempting to communicate with people with dementia. There is an association between use of caregivers enhanced communication strategies and improvements in the challenging behavioural and psychological symptoms of the person with dementia (Clare and Shakesphere, 2004). However, conventional methods of communication can often be tricky to use with people with dementia, due to the symptoms associated with their condition and if enhanced communication techniques

are to be used by professional carers within a care setting, where there are often substantial restraints on time, money and staff resources. This highlights the continued need for carers to be educated and encouraged to maintain communication with the person with dementia so that they can: understand how the person is feeling and respond accordingly; enable the person to maintain a sense of empowerment and so reduce the likelihood of secondary conditions such as depression; and allow the person to consent to and have an input into their own care interventions in accordance with a person centred approach (NICE, 2006).

Staff attitudes towards the severity of dementia can have a knock-on effect on staff-resident communication. This is at the root of the 'malignant social psychology' in dementia care (Kitwood, 1997). Negative attitudes towards persons with dementia with communication deficits and behavioural disorders have been identified as relational barriers for professional nurse caregivers caring for people with dementia (Norbergh et al., 2006). McCallion, Toseland, Lacey & Banks (1999) have shown, however, that professional caregivers can be trained to interact more with persons with moderate to severe dementia in order to facilitate relationships. (Burgio et al., 1990, Carstensen et al., 1995). Nursing aides who use facilitative conversation strategies such as providing reminders, cues and encouragements have more interactions with residents with early Alzheimer's Disease than those with more severe Alzheimer's Disease (Dijkstra et al., 2004). Studies into care home nurse attitudes towards people with dementia fell at the positive to neutral end. This is an important finding owing to the personhood perspective, from which it is reasonable to assume that, with a more positive attitude to people with dementia, the prerequisites for person-centred care will improve (Norbergh et al., 2006). Caregiver attitudes and behaviour can be significantly improved by education about the cognitive and social impact of dementia and of the existence of significantly spared abilities in those with a diagnosis. Providing information in these areas has been found to improve how formal caregivers regard people with dementia and their relationships with those they care for and their own levels of job satisfaction (Berg et al., 1994, Bohlmeijer et al., 2011, Chappell and Novak, 1992).

In 2008, the Commission for Social Care Inspection in the UK undertook a study using an adapted form of the Dementia Care Mapping tool (CSCI, 2008). In 100 thematic inspections involving 424 residents, it was found that 44% of people in the settings did not communicate with others living with them and that engaging with others was related

to wellbeing. It was also found that 22% of people spent time in a withdrawn mood state at a time when other people were engaged with activities – these were people with the most severe communication issues. Its most significant finding was that a 'neutral' communication style was related to poorer well-being scores; neutral communication being *'where staff focus on something that needs to be done and typically lacks empathy and warmth'* (CSCI, 2008). This highlights the importance of maximising the potential for interaction in the social environment.

2.5 REMPAD Reminiscence system

As introduced in Chapter One, the device of particular interest is the automatic, multi-media reminiscence recommendation technology – REMPAD. The short-term memory loss associated with dementia makes ordinary conversation difficult and eventually impossible. However, because long-term memory is often well preserved, those with dementia can potentially hold conversations based on reminiscence. The REMPAD system presents material from the past via a visual display screen to stimulate long-term memories.

The computer-based system was developed to help care staff engage in reminiscence practice with persons with dementia. REMPAD- acts as a type of conversation prompt or cognitive prosthesis to stimulate reminiscence and conversation. REMPAD can potentially mimic a conversation's natural movement from topic to topic. To accomplish this, REMPAD uses a hypermedia structure for presenting the reminiscence material whereby, the content is annotated to display information introducing the content piece; subjects, location, time and basic description. In addition to acting as a tool to stimulate recollection, we hoped the hyper-media structure would help to prompt the carer and the group to maintain a conversation with relative ease. For this reason, we required that users and participants view the system as a conversation support rather than as source of passive entertainment.

A multidisciplinary approach to designing the REMPAD system was undertaken with input from reminiscence facilitators, nurses, care workers, activity co-ordinators, speech therapists, a graphic designer and software developer. The designer gave the interface an engaging and attractive look and made navigation easy (Yang et al., 2013).

Potential RS users and their care home organisations were involved throughout the design process of developing and evaluating the prototype. An iterative design approach was used to developing the first prototype. Care homes that expressed an interest in

helping develop and evaluate the system were selected to participate in the user trial. It was unknown how staff would react to the high-tech system invading their domain. Evaluating this is the third objective of this thesis.

The system lets users choose and play video clips related to their selected interests. The video clips are short to limit the impact of working-memory problems that might preclude people with dementia from being able to follow long clips. In addition, the clips are intended to act as conversation prompts and not be too immersive. REMPAD randomly selects content from a large pool of identified interests and gradually fine-tunes its recommendation list as feedback on the content is entered into the system. In this way, the system is in a different configuration each time it's used. To make REMPAD more widely usable we featured generic reminiscence materials and not personal reminiscence content from the group participants.

2.6 Summary

Chapter Two formed the literature review of this thesis. In chapter two, I outlined the empirical evidence for psychosocial benefits in reminiscence application in dementia care along with current challenges in reminiscence practice. This was followed by a discussion on the emergence of RS technologies to engage people with dementia and the ways in which ICTs can be used to support people with dementia and their carers to reminisce and socially interact. Associated challenges with integrating technology into both the dementia care and the care home setting and the types of support and guidance required to engage with ICT were also discussed. Organisational culture and environmental factors and how these influence social engagement and communication difficulties encountered by people with dementia were discussed. Lastly, I gave a rationale, by synthesising the theoretical assumptions of social interaction and the empirical evidence of existing reminiscence interventions to illustrate how the REMPAD reminiscence system can support person-centred care.

3 METHODOLOGY

This purpose of this chapter is to provide a summary of the methodology that was used to construct this single case study that involves an inductive approach to interpretative sense making of an exploratory and descriptive account of an idiographic project. The philosophical assumptions that allow me to present my rationale for pursuing an interpretivist case study methodology are presented in the first part of this chapter. The second half of this chapter moves on to deal with the research design in a practical sense, explaining the reasons behind the three phases of the research and the methods used to collect and analyse the data. Finally, ethical considerations are explored.

3.1 Constructivist Ontology

Blaikie (2009) stresses that social researchers too often "just muddle through" the design of their research study. In particular, he states that their research fails to clarify certain ontological and epistemological assumptions. This is the reasoning behind embracing the philosophical influence of constructivist ontology.

A constructivist ontology view is that reality is constructed rather than 'set in stone'. It is not objectively measurable, and, furthermore individuals construct their reality by associating 'meaning' with certain events or actions (Bryman, 2001). By approaching the research from this position, I was able to establish regular patterns and irregularities in the meanings associated with research subject reports on reminiscence and technology in the care home.. Rubin (2005) suggests, interpretive social research is about figuring out what events mean to research subjects: how people adapt and how they view what has happened to them and around them. It is identifying this complexity and subjectivity that underpins this qualitative research into how reminiscence and technology are perceived in the care home and what happens when the two are mixed together.

Adopting the philosophical stance of constructivism provides coherence between the literature review and the case study as a research strategy for this investigation. Constructivist assumptions are in line with the reviewed literature, as they acknowledge the importance of psychosocial factors in constructing reality, which for some is their experience and understanding of reminiscence and the process of supporting identity and social interaction. Furthermore, constructivist assumptions accord with the case study as a useful strategy for this research, as they enable exploration of the REMPAD

reminiscence system as influenced by contextual factors of social interaction and the care home organisational environment. Taking a constructivist stance to research will hopefully assist the varied audiences of dementia research to understand and interpret the findings accordingly. The theoretical foundations of the psychosocial understanding of dementia and the integrated view of reminiscence as being inherently social are in line with constructivist underpinnings. These underpinnings are harmonised with theories of person-centred care in dementia which suggest that both social interactions and communication are the foundations for developing and maintaining people's identity.

3.2 Interpretivist Approach

Situating this research within the interpretivist, constructivist paradigm positions this research nicely to use qualitative methods, such as in-depth interviews and observation. These types of methods record the types of data that enable me to reflect on the subjective meanings and interpretations; the social and culturally embedded nature of individual experiences; and the relationship between the researcher and the researched (Rubin and Rubin, 2005). This is a position that seeks to understand individual experiences of interactions, events and social processes and identify patterns in these subjective experiences.

This interpretivist constructivist research paradigm is in contrast to the positivist paradigm, which insists on a strict protocol for the study design and parameters, based on fixed hypotheses and only those events considered relevant are recorded. Conversely, qualitative studies may begin to uncover the complexity of social processes (Strauss and Corbin, 1988). Case study

The qualitative, interpretive approach allows acknowledgement of conflict, on going struggle, tension and subjectivity, as well as the situated and co-produced nature of accounts (Rubin and Rubin, 2005). Rather than establishing universal truths about the world, a qualitative study is about gaining an understanding of how some differently positioned actors talk about their experiences and the valuable approach because so often the cost of attempting to generalize is that we do not see and investigate those aspects of a process that do not fit our presuppositions about a particular phenomenon.

Overall the advantage of a flexible, descriptive and qualitative approach is that rather than merely testing pre-existing ideas, they can make observations that demand the creation

of new ideas and categories that might not emerge in quantitative designs (Strauss and Corbin, 1988).

3.3 Case Study

The case study method was chosen in this study as it enables investigation of reminiscence and technology in a real-life context, and produces case-specific theories of the processes involved when the two are combined. Case study methodology can be underpinned by diverse philosophies.

From reviewing the literature on case study methods, the two most influential writers on case study methodologies are Robert Yin and Robert Stake. Yin (2003) defines a case study as; 'An empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident' (pg.13).

Yin's interpretation of a case study is not in keeping with constructivism, as it follows logic and positivist philosophical assumptions and suggests a number of useful techniques to be followed in a logical process, aiming to explain causal relationships within cases (Yin, 2013). , Stake (1995), on the other hand, emphasises the importance of interactions and interpretations to shaping the case in line with constructivist philosophy. While the use of the case study as a method for this enquiry follows a similar ethos to that proposed by Stake (1995), as it is a retrospective study it also adapts the useful, practical techniques for carrying out case study as described by Yin (2013), without adopting its philosophies. This allows for a flexible structure for the contextual factors including interactions and environments.

Stake (1995) defines the case study as a specific, complex, functioning thing rather than a generality. The case, in some ways, has a unique life. It is something that we do not sufficiently understand and want to; therefore, we do a case study. The case study should encompass specific techniques for collecting and analysing data. Furthermore, data should be collected from different sources and its truthfulness should be ensured. As a research method, the case study is used in many situations, to contribute to our knowledge of individual, group, organizational, social, political and related phenomena (Yin, 2013). It seems that whatever the field of interest, the distinctive need for case study

research arises out of the desire to understand complex social phenomena. Both Yin and Stake distinguish different types of case studies.

Stake (1995) differentiates between *intrinsic, instrumental* and *collective* case exploration. An *intrinsic* case study is where the case is of primary importance to the exploration. The exploration is driven by a desire to know more about the uniqueness of the case and not because of any assumption that by studying it, one learns about other cases or some general problem. Therefore, the study of reminiscence and technology in care homes may be called an intrinsic case study. 'The more the intrinsic interest in the case, the more we will restrain our curiosities and special interests and the more we will try to discern and pursue issues critical to the case'' (Stake, 1995).

Yin (2003) also distinguishes three types of case studies: *explanatory, exploratory* and *descriptive*. An *explanatory* case study often explains casual relationships and develops and explanatory theory of the phenomenon. An *exploratory* case study investigates a specific phenomenon that is characterised by a lack of preliminary research. This form of case study is often conducted in advance of an explanatory case study, where the focus is on identifying the issues or questions guiding research. An exploratory case study is not just limited in terms of its qualitative or quantitative specificity. A *descriptive* case study has well-established questions about the phenomenon. The descriptive case study distinguishes itself from other cases by the use of a descriptive theory at the outset. Descriptive case studies seek to reveal patterns and connections to this theoretical construct. This case study adopts an exploratory purpose.

The case is often a single individual but can also be a group or an issue or, in this study the case is a particular piece of technology. Characteristically, case study research examines extensive and varied data sources within a continued time frame in order to bring an in-depth understanding about the case (Stake, 1995). The knowledge generated in this research is deeply dependent on the context in which it is acquired, as the case study is situated in individual environments, confined to a specific time frame and presented as based on my subjective but reflective interpretations as the researcher.

3.3.1 Case Study Justification

In this case study, defining REMPAD as the case is critical to understanding how this case study relates to any broader body of knowledge to generalize to, for example, technology in healthcare and more specifically reminiscence in dementia care. The "case" is further

defined as being one of "technology and reminiscence" and a holistic and real-world perspective on the application of technology in reminiscence is retained by exploring this from the perspective of those experiencing it, in the environment of the care home this is queried using how and why questions with a focus on contemporary information. The earlier review of literature highlighted that there is limited obvious and available direction on implementation of technology based reminiscence practices in care home settings and the application and process of implementing technology in reminiscence remains ill defined in this context. Therefore, the boundaries, between traditional versus technology enabled practices, and how this fits into the organisational structure of activities in care homes, has not been previously explored. This study seeks to investigate contextual events around reminiscence and technology in the care home.

Qualitative research has a longstanding history as an exploratory strategy. It offers flexibility in design and application, which are more sensitive to the complexities of social phenomena than quantitative methods, which offer clearer, directly observable indicators. For this study, both a qualitative protocol and quantitative protocol was applied in the data analysis process. There was an emphasis on contextulisation to support the interpretive sensemaking when exploring how visible reminiscence and technology are in care homes and how reminiscence facilitators respond when the two are mixed together. Quantitative, descriptive statistics of the frequency of occurrence of recorded units and reminiscence facilitator ratings of satisfaction was undertaken beside qualitative methods of observation and interview.

The case study methodology provided an approach that emphasises the depth of study and the assumption that reality can only be understood through social constructions and interactions, and that the context in which the phenomena under study is situated is complex.

3.4 Case study rigour

This case study research attempts to shed light on what is happening in reminiscence practice in the care home setting thereby adding knowledge to enrich the picture of care homes and the interaction between staff, residents, reminiscence and technology. However, the case study methodology is not without its critics and there are limitations in adopting this approach that require me to address.

A reoccurring criticism of the case study research is its validity as a research approach in the research community. For some, case study lacks academic rigor and thus, can be considered as only marginally better than anecdotal evidence. This misunderstands the nature of case study research and ignores the wide uses of case study strategy in the world of social research.

To mitigate any accusation of (a) not understanding the nature of case study research and (b) sloppy or ill-defined approaches in designing and applying case study strategy for this research, I have done four things. First, the nature and philosophical underpinning of case study research is discussed openly and related to the nature of this particular work; second, well established data collection methods are used to collect the empirical data; third, a structured, disciplined, approach to data analysis is adopted; and fourth, precise details of data collection and data analysis techniques applied to this empirical research are described in detail, transparent and available for scrutiny.

Critics claim that the process of preparing case studies takes too long and results in massive unreadable documents or report only the researcher's conclusions. It is subject to risk of researcher bias more so than other research strategies and subjects may provide inconsistent or conflicting accounts, because of either a desire to manipulate results or inconsistency of private or public opinions (Harvey, Smith and Wilkinson, 1984).

Case studies are undertaken to make the case understandable (Stake, 1995). Stake (1995) explains that single cases do not have as strong a base for generalizing to population of cases as other research designs but people can learn much that is general from single cases. This happens when a reader is familiar with other cases and they add this one in, thus making a slightly new group from which to generalize, a new opportunity to modify old generalisations (Stake, 1995). The topic of generalisations has received widespread attention in case study literature. Notions of 'thick description', 'naturalistic generalisation' and 'experiential understanding' are proposed to describe how people from generalisations from their experience (Stake and Trumbull, 1982). Thick description is not complexities objectively described; it is the particular perceptions of the actors (Stake, 1995).

As a result, the concept of *relatability, t*hat is to say, considering where other researchers or dementia care practitioners are in relating to situational aspects of this case study and recognizing similar issues and problems described in this research work and what they

can learn from the findings. Biggam (2011) supports the concept of relatability and argues that 'relatability of a case study is more important than its generalisability'. It is not expected that the fruits of this research will be representative of all care homes undertaking reminiscence or technology enabled reminiscence. It is expected that, in the fullness of time, as more case studies are implemented by other researchers then the contribution to reminiscence and dementia care will be progressively amended and developed accordingly.

3.5 Research objectives

This research study has a number of inter-related objectives set within the context of utilizing a technology-based system REMPAD to enable therapeutic group reminiscence activity. These objectives relate to the exploration of:

1. *Background and Context: To develop an understanding of* current practices around reminiscing and the context of reminiscence in Irish care homes.
2. *Perspectives:* To *explore* care home perspectives on engaging with reminiscence and technology.
3. *Process & Organisational Fit: To examine* the role of technology in reminiscence and how care homes respond when technology and reminiscence are mixed together and to consider the implication for reminiscence.

The opportunity in undertaking an exploratory study is to gain a variety of stakeholder views that will contribute significantly to a richer understanding of the process, experience and issues with implementing technology in reminiscence. In this research study I will question what the introduction of technology does for reminiscence and the impact it has on the reminiscence process and experience.

3.6 Research Questions

Three key research issue questions were developed to facilitate the exploration of these research objectives. These issues questions were:

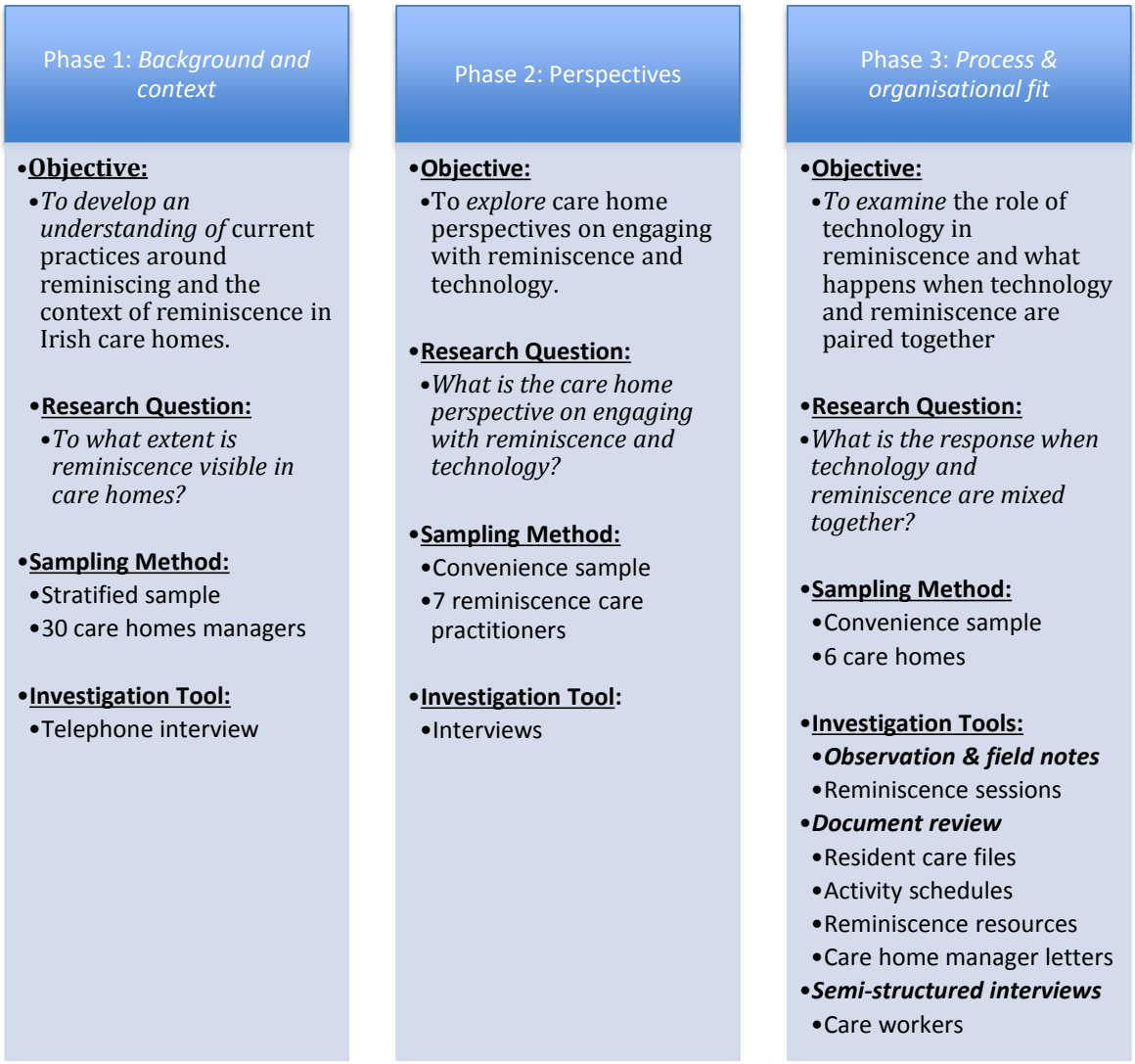
1. *To what extent is reminiscence visible in care homes?*
2. *What is the care home perspective on engaging with reminiscence and technology?*
3. *What is the response when technology and reminiscence are paired together? What implication does this have for reminiscence?*

To achieve the goal of probing deeply and analysing intensely the different stakeholder perceptions and experiences the study was divided into three phases to support the exploration of the three objectives.

3.7 Overview of the three phases of the study

Research questions one and two are simultaneously looked at in phase one and two. Research question three is specifically looked at in phase three of the research study. For each phase I identified an outline of sub-questions. Figure 3 represents an overview of the three phases of the study.

Figure 3 Overview of the three phases of the study



3.8 Phase 1

Phase one of this research looks at identifying how visible reminiscence is within the care home and explores the current practices around reminiscing. This is explored from the perspective of care home Clinical Nurse Managers, the activity coordinators and residents. An outline of the sub-questions asked to develop this understanding is depicted in the following table, 1a.

Table 1a. *To what extent is reminiscence visible in the care home?*

Topic 1	**Visibility of reminiscence in Irish care homes**
1.a	How widespread is reminiscence in the care home?
1.b	What education, training and knowledge base do care workers providing reminiscence have?
1.c	How is reminiscence undertaken?
1.d	How is reminiscence perceived in the care home?
1.e	How do residents respond to reminiscence?
1.f	What are the barriers to providing reminiscence in the care home?

3.9 Site and sample selection process

In phase one, a stratified approach to obtaining a quota sample of 60 care homes (13%), from the overall population of 467 registered care homes with Nursing Homes Ireland was undertaken. Balance and variety in the sample was achieved by firstly stratifying the population into public care home and private care home. Within the private care home strata a further stratification into individual versus chain-managed homes was applied. A quota sample of 13% of care homes were selected at random from the total stratified sample. Homes from each of the following groups were selected for telephone interview;

1. Public Health Service Executive (HSE) managed versus privately managed representation
2. Independent individual home versus care home chain representation

This particular strategy for selection of care homes for a telephone interview was used, as I wanted to look at social practices around the case of technology in reminiscence. It

was important to look at diversity of the care home community rather than representation of care homes. Diversity amongst the care homes surveyed was important so that I could really look at the case in different environment with the presence or absence of different influences of organisational structure. When contacted initially care home managers expressed a preference for engaging in interview over the phone rather than face-to-face due to time pressures. Telephone survey was used as it was a more time efficient and cost effective way of interviewing 60 care home managers to develop and understanding of current practices around reminiscing and explore perspectives one engaging with technology. Whilst 60 care homes were contacted only 35 (58%) of managers on duty at the time were available to interview.

3.9.1 Telephone interview

60 homes were contacted and just over half of potential interviewees contacted (58%) were available to complete the telephone interview. I asked to interview the person listed online as the care home Person in Charge. Of the42% not available, the reasons given were:

. Relevant person on holiday
. No answer
. No one available at time of call or under time pressure and too busy to speak

When calling the care homes, the following script was used to introduce the research:

> *"I am calling from a research team at Dublin City University where we are currently developing a new type of digital reminiscence therapy for people living with dementia.*
>
> *It involves therapy sessions where the residents would be able to interact with different types of digital media like images, music, news reports and television programmes from previous decades when they were younger. This helps facilitate interaction and discussion between residents, carers and even family members.*
>
> *We are planning to study our first prototype in Irish Care Homes. We'd like to speak with decision makers and professionals like yourself in the care home sector to find out your opinions on reminiscence therapy and to see what sort of facilities and activities that you have there in your own environment.*
>
> *This is not a sales call, it's just some research to seek your opinion and assess your requirements, activities and facilities. I won't take up much of your time."*

A full version of the survey is located in ***Appendix E*** *Telephone Interview Questions*. A breakdown of topical information questions included in the Care Home Managers Telephone Survey

Table 2. *Case Study Breakdown of Topical Questions for Care Home Managers Survey*

Theme	Questions Posed under Theme Heading
Care Home Background & Context	Size of home? Urban or rural location? Public or private care home business?
Care Home Technology & Resources	Resource availability; Group room, internet connection, Wi-Fi, TV screen, laptop/PC/iPad, activity coordinator?
Therapeutic activities for Residents	Who manages and runs activities in your home? What is their position? What is the availability of activities for residents? What is the availability of activities for people with dementia?
Satisfaction with Resources	How satisfied are you with the usefulness of these resources for activities? Are they useful? Do you feel like you are getting value for money?
Technology	Have you previously purchased any other technology resource for therapy activities? What information would you require in advance of trialling a technology resource for activities?
Education & Training	Does staff training happen in-house or externally? Do you have a budget for staff training?
Motivations towards activities & therapies	Is cost and availability of resources problematic? Do you have a budget for activity & therapy resources? How are decisions to purchase new therapies/activities made?

3.10 Phase 2

Phase two of this research continues to explore the context and background to reminiscence practice. It builds the study further by seeking to understand the perceptions of reminiscence and technology in the care home from the perspective of reminiscence facilitators working with people with dementia.

An outline of the sub-questions asked to explore this is depicted in table 1b below.

Table 1b. *Care Home Perspectives on Engaging with Reminiscence and Technology*

Topic 2	**Perspectives on technology in Irish care homes**
2.a	What is the availability of technology in care homes?
2.b	How do care home staff, residents and managers respond to technology?

3.11 Site and sample selection process

Face-to-face interviews were undertaken, over a three-week period, with 7 care home activity co-ordinators undertaking reminiscence with people with dementia. Participants were selected based on ease of accessibility in terms of geographical proximity and time availability to interview. Practitioners were recruited through direct email or phone call to care homes in the Dublin and Kildare areas within reasonable travel distance from the researcher. From the telephone interviews undertaken the researcher was aware of which homes were undertaking reminiscence and a convenience sample of reminiscence facilitators from these homes was selected.

3.11.1 Semi-structured Interview

The exploration of stakeholder views on technology-enabled reminiscence was undertaken via semi-structured interview with reminiscence practitioners. See ***Appendix E*** *Preliminary pre-design Interviews.* A combination of open and closed questions were asked. Interviews were recorded digitally and transcribed later. This enabled me to concentrate on the interview process and, capture everything said by the respondents. The interview technique although time-consuming, provided the opportunity for the interviewee to express their views and experience. Additionally, the interview was not restricted to questions that the interviewer initially intended to pose: in other words, as issues arose during the interview process, and were deemed relevant to the research issues, these were pursued. In this way questions for exploring technology in reminiscence were refined further as the case study progressed with consultation with different stakeholders. This enabled the progressive focusing of the issue questions.

3.12 Phase 3

In phase three, the exploration of stakeholder perspectives on reminiscence and technology and what happens when the two are combined together is looked at via semi-structured interview with reminiscence practitioners in care homes.

An outline of the sub-questions asked to explore these perspectives is depicted in table 1c below.

Table 1c. *What is the response when reminiscence and technology are mixed together?*

Topic 3	Perspectives on technology-enabled reminiscence in the care home
3.a	How do staff and residents respond to the use to technology for reminiscence?
3.b	What is the impact of technology on reminiscence?
3.c	What happens when we introduce a different way to reminisce?
3.d	How does this influence the person-centred care framework in the care home?

3.13 Site and sample selection process

24 (80%) of nursing homes who completed the telephone interview expressed a willingness to participate in the REMPAD field study. 9 care homes were identified for inclusion based on meeting the inclusion criteria as follows:

1. HIQA registered and approved nursing home
2. Availability of internet connection
3. Availability of activity facilitator or leader to champion the implementation
4. Availability of laptop or computer in close proximity to TV/display screen
5. Availability of wide screen TV or display screen in a group room

Additional Variables for Consideration were:

6. Geographical location
7. Public HSE managed versus privately managed care home representation
8. Independent individual home versus care home chain member representation
9. Size of care home (bed capacity)

Whilst it was attempted to include diversity in this approach to convenience sampling, the care home selection for field study was primarily influenced by the need for a minimum technology requirement to support the implementation of REMPAD in the care homes. As part of the convenience sampling selection criteria, the researcher and computer engineer also undertook a site visit to the care home to test and ensure that technical resource requirements listed in table 3 below were sufficient.

Table 3. Technical & Resource Requirements for REMPAD in the Care Home

Technical Requirements	Facility Resource Requirements
T.V/Visual display for group viewing	Dedicated group room or communal space to accommodate 6-8 persons
Broadband +/- Wi-Fi	Dedicated activity coordinator/ staff member willing to lead REMPAD
Computer in group/communal space or available laptop to supply for group in this space	Commitment to the twice weekly 7-week field study
Permission to access broadband and set up new device on Wi-Fi	

Availability of an Internet connection and Wi-Fi was the principal criterion in selection of care homes and it was the first criterion communicated via telephone to any potential interested home. Following this, geographical proximity, diversity of representation of care home organization was considered.

Information from the technical audit on the 9 homes is detailed in following table 4.

Table 4. Technical Audit of Care Homes for REMPAD pilot

Site	Internet Connection	No. Activity Staff	Hardware	Visual Display	Distance from DCU (km)	Management	Organisation	Bed capacity
A	WIFI	2	Laptop	TV	26.4km	Private	Individual	117
B	WIFI	2	Laptop (own)	TV	24.1km	Private	Chain	139
C	Landline	1	Laptop	TV	28.2km	Private	Chain	84
D	Landline	2	Computer	TV	37km	Private	Chain	76
E	Landline	1	Computer	Screen	27km	Public	HSE	50
F	Landline	1	Computer	Screen	27km	Public	HSE	31
G	WIFI	2	Laptop	Screen	2.5km	Public	HSE	40
H	WIFI	1	Laptop	TV	150km	Private	Individual	45
I	Landline	2	Computer	TV	31km	Private	Individual	124

Following this technical audit of Internet connectivity, internet speed and PC web browser applications necessary to run REMPAD, only 6 care homes were eligible for participation in the field study phase. These are depicted in *table 5* below.

Table 5. Phase 3 Final Care Home Sample Selections

Site	Internet	No. Activity Staff	Hardware	Distance from DCU (km)	Management	Organisation	Bed capacity
A	WIFI	2	Laptop	26.4km	Private	Individual	117
B	WIFI	2	Laptop (own)	24.1km	Private	Chain	139
C	Landline	1	Laptop	28.2km	Private	Chain	84
D	Landline	2	Computer	37km	Private	Chain	76
G	WIFI	2	Laptop	2.5km	Public	HSE	40
H	WIFI	1	Laptop	150km	Private	Individual	45

3 locations had to be omitted from the study due to infrastructure challenges and progress delays on the side of the care home and its external Internet and ICT providers. In two instances with HSE managed care homes lengthy delays with the upgrade of software infrastructure meant that it was unrealistic to involve those sites as the forecasted time for commencing upgrades exceeded the lifespan of the research project. In another case, a private care home had to withdraw from the field study phase of the study due to technical complications with interference of Internet connectivity, despite having invested privately in upgrades to satisfy the inclusion criteria. 7 reminiscence therapy groups were established across 6 care home sites due to the willingness of 2 activity co-ordinators in 1 location to engage in the field study.

3.14 REMPAD Field Study: reminiscence facilitator profile

Seven reminiscence facilitators were recruited across the 6 care homes to pilot the REMPAD system in their homes. The background and demographics characteristics of the activity co-ordinators are presented below (table 6).

Table 6. Profile of REMPAD Group Facilitators

Group	Experience (Years)	Age	Gender	Formal Training	Reminiscence Experience (Years)	Using technology for reminiscence?
A	2.5	31	F	Mental health nurse, Sonas trained	2	No
B1	3	34	F	FETAC Level 5	2	No
B2	3	39	M	FETAC Level 5, Military background	0	No
C	4	44	F	Diploma in activities & dementia care	3.5	No
D	1	29	F	Health & counselling	1	No
G	12	56	F	FETAC Level 5, Sonas trainer	10	No
H	4	59	F	Social care NUIG, ECDL	4	No
Mean	**4.2**	**41.7**			**3.5**	

The experience of the 7 participants working in activities ranged from 1 year to 12 years. Mean years of experience with reminiscence was 3.5 years with a range of 0 years to 10 years. All participants had undertaken a course or received a qualification to prior to being employed as a nursing home activity coordinator. This training ranged from certificate level to diploma. The average self-rated computer competency was rated as fair; only one activity coordinator had completed any formal training in computers by achieving a European Computer Driving License (ECDL) in computer usage.

3.15 REMPAD field study: facilitator training & support

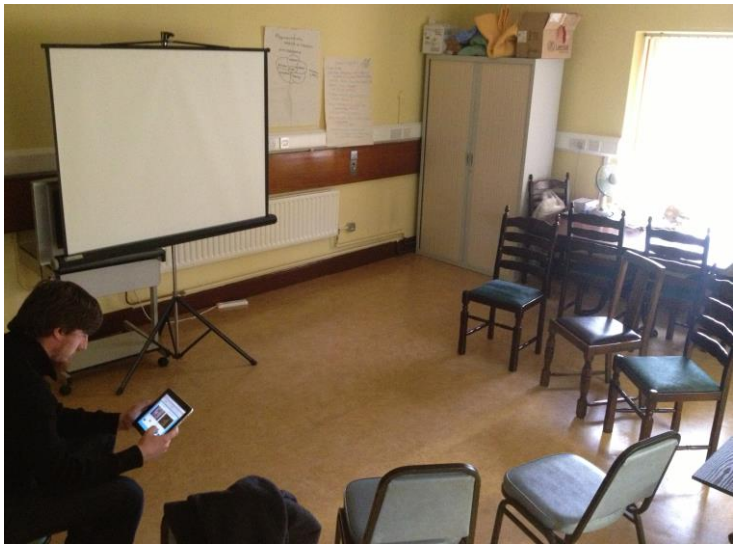
The lead reminiscence facilitators from each care home were provided with a one-to-one, 2-hour education and training session on how to co-ordinate and facilitate a group reminiscence session with the REMPAD software. Topics such as reminiscence theory and practice, group dynamics, supporting communication and managing challenging behaviour were discussed and followed by a demo and guided system walkthrough.

An education and training package was developed for activity co-ordinators to ensure a minimum standard of knowledge and awareness was established in areas of:

1. Cognitive impairment, dementia and the impact on communication skills

2. Reminiscence Therapy
3. How to set up and run a successful RT Group
4. How to support positive reminiscence experiences
5. How to manage negative recollections
6. Set up (image 1) and use of the REMPAD system

Image 1. Set-up of REMPAD for a group



The 2-hour education session was undertaken with all activity coordinators in each nursing home location prior to commencing the RT groups. A hard copy of the educational manual was provided to all activity co-coordinators.

Care homes who consented to engage in the field study requested guidance on which residents to invite into the reminiscence groups. Guidance for group reminiscence participant selection was provided to care home managers and reminiscence facilitators. Inclusion and exclusion criteria (identified below) were set out by the field study co-ordinator based on previously identified group reminiscence therapy evidence-based practice guideline recommendations for engaging people with dementia by the Academy of Neurologic Communication Disorders and Science (Kim et al., 2006). See Appendix H for Inclusion criteria for group participants engaging in REMPAD Field Study

Facilitators were advised to have no more than 6-8 participants in each reminiscence group.

In total across the 6 locations 52 participants were recruited. This is outlined in the *table 8* below.

Table 8. *No. Group Participants recruited from Care Homes*

Location	No. Of Groups	REMPAD group Leaders	No. Group Participants	% Of total residents in home
A	1	1	6	5%
B	2	2	16	11%
C	1	1	7	8%
D	1	1	6	8%
G	1	1	9	22%
H	1	1	8	18%
TOTAL	7	7	52	

The software engineers designed the system's interactional elements and multimedia database, keeping the program code and data for the different study locations separate to allow users to easily update, change and personalise the material presented for their specific groups in their care home locations.

3.16 REMPAD Field Study: Schedule

Reminiscence group facilitators were requested to run a 14-session programme, twice a week for 45-mins a session, for seven consecutive weeks. This intervention schedule was selected to facilitate carryover and build-up of familiarity for the group members with attending the REMPAD reminiscence sessions. A similar schedule for reminiscence intervention was reported in a Chinese study implementing 30-minute individual reminiscence therapy sessions, twice a week for four weeks with positive outcomes to reduce anxiety in elderly women with dementia (Chou et al., 2008). This concept was based on the intervention schedule for a randomized controlled trial into Cognitive stimulation therapy in dementia that revealed favourable results for cognitive function and quality of life following a set stimulation programme (Spector et al., 2003).

3.16.1 Semi-structured Interview

The exploration of stakeholder views on what happens when reminiscence and technology are combined together was looked at in phase three of the study via semi-structured interview with reminiscence practitioners undertaking technology-enabled reminiscence in their care facilities.. See ***Appendix F*** *Semi-Structured Care Home Post-Field*

Study Interview Questions A combination of open and closed questions were asked.. Interviews were recorded digitally and transcribed later.. This enabled me to concentrate on the interview process and, capture everything said by the respondents.

The interview technique although time-consuming, provided the opportunity for the interviewee to express their views and experience. Additionally, the interview was not restricted to questions that the interviewer initially intended to pose: in other words, as issues arose during the interview process, and were deemed relevant to the research issues, these were pursued. In this way questions for exploring technology-enabled reminiscence were refined further as the case study progressed with consultation with different stakeholders. This enabled the progressive focusing of the issue questions.

3.16.2 Observations & field notes

Data collection techniques used in the field included, direct session observations and field note keeping on care home experiences. One session per week was observed in each care home location across the 7-week intervention phase.

To ensure quality control in delivering the technology enabled group reminiscence sessions, a member of the research team observed one session per week in each care home and offered feedback to the reminiscence coordinator immediately after the session.

3.16.3 Document Review

In the process of collecting qualitative data, other textual data was also recorded. Quantitative textual analysis of frequency of occurrence of recorded units was captured. Examples of this include, the number and types of therapy activities in the care homes, frequency of activities (as recorded on weekly activity schedules), availability of technology, training and types of reminiscence resources.

After each reminiscence session, before logging out of the reminiscence system, the reminiscence facilitator was prompted to complete a simple on-line report on satisfaction with reminiscence content recommendations.

Upon completion of the field study, feedback on the education and training module and follow on support was obtained from group facilitators via semi-structured interview (appendix G) and completion of a user satisfaction survey. Information on their

experience (appendix G), and perspective on the REMPAD as a reminiscence system was obtained.

3.17 Summary of data collection techniques

The following table provides an overview of the issue questions

Table 9. Case Study Units of Analysis

Issue Questions	Unit being Characterised	Source of Data
How visible is reminiscence in care homes?	Prevalence of reminiscence in care homes	Telephone Interviews with Care Home Nurse Managers
	Perception of reminiscence in care homes	Pre-design interviews with reminiscence facilitators working with people with dementia
	Factors that influence the use of Reminiscence	Pre-design interviews with health care workers Telephone Interviews with Care Home Nurse Managers Interviews with REMPAD users from nursing home study Session observations
	Knowledge base & experience of people engaging in reminiscence	Pre-design interviews with reminiscence facilitators Telephone Interviews with Care Home Nurse Managers Interviews with REMPAD users from nursing home study
	Confidence undertaking reminiscence	Interviews with reminiscence facilitators working with people with dementia and interviews with REMPAD users from nursing home study

Issue Questions	Unit being Characterised	Source of Data
What factors influence a health care worker's use of technology in the home?	Usage of technology Experience with technology Opinion on potential for technology in care of older person	Interviews with reminiscence facilitators

Issue Questions	Unit being Characterised	Source of Data
How do health care workers respond when reminiscence and technology are mixed together?	Health care worker experience	Interview with reminiscence facilitators Session Observations
How do residents respond when reminiscence and technology are mixed together? Does having technology for reminiscence make reminiscence more of 'a thing'? How does this influence person-centred care framework in the care home?	Resident experience	Interviews with reminiscence facilitators Session Observations

3.18 Framework for data analysis

As mentioned above in this case study research, data was collected from a variety of sources. The questions of how visible are reminiscence and technology in care homes and what happens when reminiscence and technology are paired together are analysed across the different exploratory stages of the case study.

As the case study produced a large amount of data, the analysis was a complex process requiring flexibility and skill. This was the most difficult aspect of the case study methodology, primarily because case study analysis is an activity that requires thorough human interpretation. Unlike statistical analysis, there is no specific recipe to follow to arrive at findings (Yin, 2009).

Revelations from the first two topical questions enabled the progressive focusing of the enquiry into how people respond when reminiscence and technology are paired together. Issue question responses were considered from the perspective of the reminiscence facilitator and the care home manager. This is achieved by; teasing out various relationships between people who provide reminiscence; probing issues with reminiscence and issues with technology; and through direct interpretation of observations and reports of what happens when the two are paired together. It is important to highlight that these perspectives are not independent of each other as the facilitator's experience may impact on the management report and visa versa.

3.19 Data analysis process

Analysis of qualitative data is not a linear activity and requires an iterative approach with much repetition and reflection to capture and understanding patterns and themes (Miles and Huberman, 1984; Creswell 1997). Strauss (1987) further elaborated on the data analysis methodology, creating Constant Comparative Method, in which the researcher developed codes while reviewing transcripts or other verbatim data to identify constructs, and iteratively compared texts identified with the same code to ensure they were representative of the same construct. Connections observed between constructs were described as patterns, and generalizations drawn from patterns observed in case studies were described as themes. A synthesis of the information results in an exploratory model. This process of data analysis using the constant comparative method was applied to this research.

Constant Comparative Method

In the constant comparative method steps described by Boeije (2002), data is collected from a study participant and then analysed using open coding. Based on the coding analysis, the data collection protocol may be enhanced before collecting data from the next study participant. This sequence can continue throughout the study. This is the constant comparative nature of using data analysis to refine future interactions. However, in this study I applied the constant comparative method of data analysis retrospectively to previously collected data. This limited me in having the opportunity to refine the interview questions as the data was collected. This presented the issue of how to adhere to the spirit of constant comparative method without having the possibility of asking modified or additional questions. I therefore took the approach of analysing the data in time sequence.

The time-dependent analysis took the form of coding the oldest transcript from the first participant, moving to the second participant, and so on. After analysing each set of transcripts I collaborated on the analysis with my supervisor, synthesizing the codes to create a unified codebook. I then reapplied the codes to the same set of transcripts and progressed to the second oldest set of transcripts from the participants, conducting the same analysis, collaboration, synthesis, and reapplication. This time ordered analysis continued until all transcripts were analysed. This resulted in a mechanism for observing changes in data as a function of time and allowing comparisons from any point in time to be made.

Categorical Aggregation

The quantitative data analysis technique of categorical aggregation was used for the grouping of instances and occurrences and frequency of specific categories for example, records on activity schedules, reminiscence practices and technology usage

Thematic Analysis and "Patches"

Stake (1995) suggests that an additional or formal analysis in the form of thematic or chronological analysis should be carried out on selected portions of the observations most worthy of inclusion in the study write up. My analysis followed case study analysis techniques proposed by Yin (2003), where only data related to the theoretical proposition

questions that prompted the study are considered for analysis. However, in line with Stake (1995), there were instances during the analysis when novel patterns emerged from the data and formed the basis of new research questions, also known as emic questions because they arise from within the data. Data was placed in arrays using both paper formats and Microsoft Excel spread sheets. Arrays were grouped and re-grouped by issue question and data source

Stake (2010) refers to patches as the recording of ideas or patterns throughout the analysis process. They may include the most interesting observations representing a pattern, or direct quotes from participants. Patches were collected and arranged in multiple ways including according to each issue or in relation to each other. Some patches developed to generate ideas about the relations between themes or to identify new issues. I then developed these patches into memos, while maintaining the original patches in the form of "Data source extracts" used for illustrative purposes throughout the findings write up in Chapter Five.

Chronological Report

As each interview was semi-structured, the transcriptions from each interview did not form one mass of oral text, but were categorized by chronological order and then into predetermined topics and sub-topics, in turn aiding the analysis phase. Events were sequenced as they had occurred in the progression of the study. The case study report was written up in chronological order. Chronological order is known as a natural order and is considered a familiar device for the form of organization that can be found I stories that have a beginning, middle and end (Mills, Durepos and Wiebe 2010).

Interpretation

This research draws its conclusions and assertions on the basis of the interpretations made from observations from the data, Stake argues that the descriptions of observations may not always be closely linked to the interpretations that one makes as "by custom, researchers are privileged to assert what they find meaningful as a result of their inquiries" (Stake 1995 p.12). Thus, the interpretations described in this research present my version of reality and can be influenced by my subjective experience as the researcher. Initially all data was directly interpreted by searching for patterns emerging from the issue questions. However, to ensure this research is true to the philosophy of

constructivism, this version of reality is strongly dependent on both my interactions with the reminiscence facilitators and my reflections during supervisory meetings.

Stake (1995) suggests that the case study researcher cannot tell 'the' story but rather 'a' story as the researcher interprets it from the data. By this he means that the story may be limited to the perspectives available to the researcher or interpreted by the researcher or because certain aspects may be beyond the focus of the case. Nevertheless, Stake (1995) states that:

"*We must seek an accurate understanding…because we have discovered and are portraying different views and multiple perspectives on activities and issues, information that we have deliberately sought… (*p.134)

In the interest of an 'accurate understanding', the findings are presented here in a way that best illustrates the three different stages of the research process and the convergence across and between the various data sources from these stages. Data analysed from case notes and other relevant documents is used to support or challenge data reported by the various participants from telephone surveys and face-to-face interviews.

Triangulation

Using triangulation different accounts of the same phenomena – in this case reminiscence and technology enabled reminiscence – can be compared and contrasted. At a simple level triangulation is said to occur 'as the use of two or more methods of data collection', e.g. interviews and documented sources, but can also be used, as intended in this case study, to 'map out, or explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint' (Cohen and Manion, 1995). Detailed exploration of all data gathered by means of direct interpretation and categorical aggregation (Stake, 1995) as well as through thematic and chronological analysis produced the findings in light of the three key issue questions. Each of these offered rich descriptions of the process, experience, issues and benefits of reminiscence and technology enabled reminiscence within the context of the care home. The findings provide vicarious experiences that offer an insight into the guiding research question "What happens when reminiscence and technology are mixed together in the care home?" The case of technology-assisted reminiscence was examined with a case matric using Excel software, and developed concepts according to major issue questions across

different data sources. Summary tables were developed identifying the data sources that provided evidence for each issue question. Following the development of the individual matrices, these were reviewed in conjunction with the issue questions in order to analyse findings across the individual data sources. A case matrix display was developed for each of the three critical issue questions underlying this study. In this way it was possible to compare data to discern patterns or themes from the various data sources leading to verification, revision and the discarding of impressions. Yin (2013) states that triangulation ensures that data found across different data sources is considered in exploring the issue. Matrices were modified according to data sources to ensure that the reported findings were triangulated.

It is the intention that the results of this research are used to contribute incrementally to the body of knowledge in reminiscence work with people with dementia and that, as other research is implemented exploring the field, then so generalisations can be made in time.

3.20 Ethical considerations

Ethical approval was obtained from the Dublin City Research Ethics Committee (DCU REC) prior to conducting this study. The Research Ethics Committee approved the field study proposal and supporting written materials and resources proposed to aid the informed consent process with the care home stakeholders. A copy of the letter from the committee is included as *Appendix B*.

Principles of non-maleficence, respect and anonymity were upheld within the parameters of the law at all times. Care homes were informed of the research project both verbally and in written format by the investigator following participation in the telephone interview.

Upon recommendation from DCU REC a one-page overview document was developed for each of the different stakeholders (care home manager, activity co-ordinator & resident) and their levels of cognitive-linguistic ability. The information pack with the informed consent documents was supplied to the care home managers and activity facilitators to distribute. This information pack clarified the study overview, objectives, participant expectations and requirements and contained informed consent documents for the recruitment of care home residents. These documents are attached in *Appendix C Informed Consent Documents.*

Managers and reminiscence facilitators were responsible for recruiting residents to participate in the REMPAD reminiscence groups. Guidance for activity coordinators on group participant selection was provided (see appendix H). As dementia is a progressive condition and the person's capacity to consent may fluctuate, the implementation of an on-going consent process as part of each REMPAD session attendance was advised during the REMPAD education and training session (see Appendix I for copy of training presentation). As the reminiscence programme consisted of fourteen sessions, run over 7-weeks, it was possible for the person with dementia or care home to change their mind about taking part in the study. It was also acknowledged that the person with dementia might deteriorate throughout the duration of the therapy and wish to withdraw from the research. It was advised that progressive decreases in cognitive ability associated with dementia should not be seen as a criterion for exclusion from research studies.

The nature of qualitative research means that consent is not a single occurrence but a continual, on-going process between the researcher and the participant. This should be practiced especially when the person may forget that he/she has consented to participate. Research shows that most persons with very mild-to-moderate dementia probably retain sufficient capacity to make valid treatment and research decisions (Wilkinson & Dewing, 2002, 2007). The on-going consent strategy has been used in several studies involving people with dementia and was also endorsed by The Alzheimer's Society of Ireland (Hubbard and Downs 2002; Dewing 2002). The process worked by first obtaining a written informed consent form; then, at every further point of contact, repeating an explanation of the research and obtaining verbal consent from the participant. Furthermore, the participant's non-verbal as well as verbal behaviours were observed in order to determine whether or not the participant wished to participate in the study at any particular point in time. The participant was given opportunities to ask questions about the research and make sense of it. This strategy enabled the participant to change their mind about participation and gave them some control over the research process. It was agreed with the activity facilitators that consent would be obtained from the person with dementia via informed consent on a repeated weekly basis.

3.21 Researcher bias

Miles (1979) suggests that one of the most serious criticisms of case study is that unlike quantitative research, there are few conventions the researcher can rely upon to defend

him/herself against self-delusion or the presentation of unreliable or invalid conclusions. There are of course potential ethical issues – practical issues regarding the joint role of researcher and team member. Where the researcher is subjected to the possibility of bias and personal idiosyncrasy. This is a challenge with the constructivist paradigm, and epistemological stance that reality is constructed through the interactions between the researcher and study participants. For that reason, I engaged in the process of reflection, where I reflected on my influence and critically analysed it through diary-keeping and supervisory meetings. These meetings took place every two weeks during the therapy process and entailed reporting on the progress of the therapy, as well as observed challenges and preliminary findings. These allowed me to maintain a self-reflective stance throughout the delivery of the therapy and during the report write up. This said, I acknowledge that both my presence, and my approach to delivery and observation during the therapy, was part of the complex process of investigating the experience of REMPAD.

Throughout the research process, the researcher was cognisant of her position as a researcher and promoter of the REMPAD system and the potential for bias that this can bring into the interpretation of the qualitative findings. Great efforts were made to be aware of my own biases and to mitigate this risk and address all such bias in the writing of this thesis. This was supported by the adoption of practices and processes to facilitate a more holistic and reflective perspective on the data, these included; continuous self-directed and guided reflection, regular meetings with my research supervisor, diary keeping of issues and questions to query and critical memo recording throughout the data analysis process. This facilitated a level of meta-cognition for reflection, progressive focusing and the formulation of interpretations and generalisations.

Employing a constructivist approach has been considered and approached by me with caution as being the researcher I am in a privileged position of being able to interpret or assert what I may find as meaningful as a result of my inquiries. My reports and consultations can therefore run the risk of including strictly determined findings and loosely determined assertions. Throughout this research I have therefore tried to maintain awareness of representing the interpretations of those people studied as well as my own interpretations. It is with this knowledge in mind that I selected the position of, attempting to observe and understand how the participants see and experience things so that the 'multiple realities' of the different, and even contradictory views of what is happening are preserved.

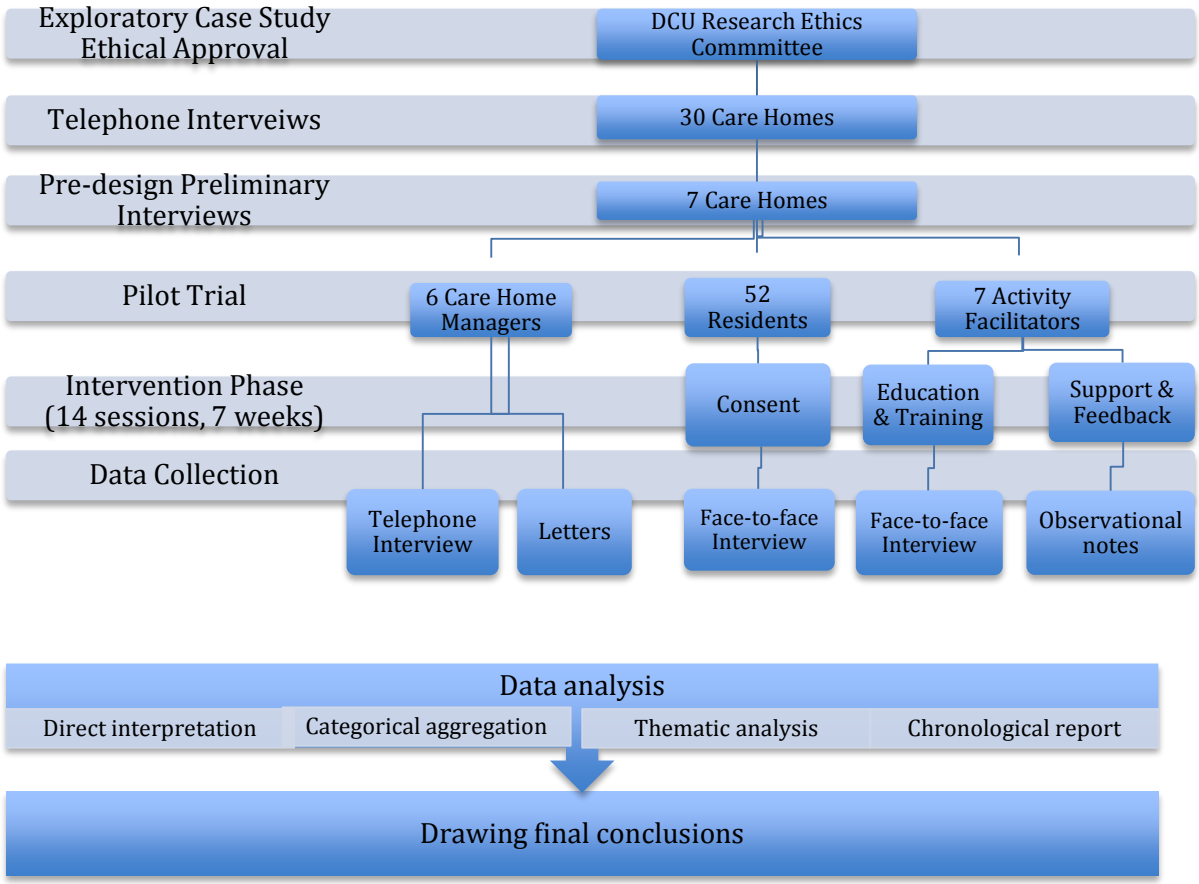
3.22 Methodology summary

In this chapter, the philosophical underpinnings of interpretive constructivism, as well as the methodology of an exploratory case study have been described. The first part of the chapter dealt with the implications of constructivism as a research paradigm for this study, and the rationale for uniting it with a case study in the research for contextual understanding.

The second half of the chapter dealt with the qualitative and quantitative methods employed in gathering data for this thesis, and how that data has been analysed. The study employed both qualitative and quantitative methods so as to explore care home stakeholder views and practices related to reminiscence, technology and technology-enabled group reminiscence and to capture the frequency of occurrence and availability of reminiscence and technology in care homes. Finally, ethical considerations and the approaches by which these were addressed were presented.

Figure 4 provides a Summary overview of the case study.

Figure 4. *Summary of Case Study Methodology*



4 Findings

4.1 Introduction

This chapter presents the findings on the three key issue questions (section 3.5 and 3.6).. In this chapter I will provide a clear but in-depth description of the context and processes of reminiscence and technology in the care home and what happens when the two are combined. I attempt to portray what is happening in the care homes by including excerpts from reminiscence facilitators sharing narratives about their role, as well as negative responses or challenges with reminiscence and technology.

The findings from this exploratory study are organized in response to the three stages of the research and the three key issue questions posed. As outlined earlier, each issue question further drills down into sub- questions designed to explore the issue further. In doing so certain themes come to light and are generated. The findings are presented in chronological order in an attempt to convey how the research process evolved over time.

The findings are presented according to their themes so that finally tentative assertions about the case can be established. The assertions deriving from each theme will be used as the basis for detailed conceptual discussion in the next chapter (Chapter 5).

I firstly start with an exploration of reminiscence in the care home and the question of how visible is reminiscence in the care home.

4.2 How visible is reminiscence in the care home?

In considering the first question, the reader will be provided with an account of current responses to existing reminiscence practices and processes. This will provide the reader with information on matters they will already be familiar with but in this way the reader is afforded the opportunity to gauge the accuracy, completeness and bias of reports.

Background & Content; Care Home Activities & Resources

The presence of reminiscence in the care home was firstly explored through general enquiry about the provision of activities in the care home through telephone interviews with care home managers.

The demographic characteristic of the 35 care homes that participated in the telephone survey were captured (table 10) in accordance with the topical information questions and asked.

Table 10. *Demographic characteristics of Care homes from Telephone Survey*

		No.	%
Care Home Background & Context	Average care home bed capacity	**64**	**-**
	Voluntary run home	**10**	**28%**
	Privately run home	**25**	**72%**
Care Home Resources & Infrastructure	Internet access	**33**	**94%**
	Wi-Fi access	**27**	**77%**
	Group room	**29**	**83%**
Care Home Activities	Reminiscence provided	**21**	**60%**
	Use technology for activities	**8**	**23%**
Access to & Availability of Activities	Access to PC/laptop for activities	**28**	**80%**
	Full-time activity coordinator on staff	**29**	**83%**
	Budget for activities	**Not disclosed**	**Not disclosed**
Education, Training & Development	In-house training	**Yes**	**Yes**
	External training	Sonas, Demenita care matters, Ciel Bleu	

The average care home bed capacity of the 35 care homes surveyed was 64 beds and 72% of homes surveyed were privately run. According to Nursing Homes Ireland data these figures are representative of Irish care home landscape (NHI, 2010).

When asked what activities and therapies the care homes provided to residents most of the interviewees listed activities which were the mainstay for all residents. They reported that some residents will not participate in group activities and that there are not very many activities specifically for persons with dementia. Although some were quick to highlight that they provided SONAS and SIMS for people with dementia. Interviewees mentioned the existence of Snoezelen rooms as specific for people with dementia. 60% of care home managers surveyed listed reminiscence as one of the activities they provide for residents. An overview of these activities available in the care homes surveyed is provided (table 11) below.

Table 11. *Reported Activities and Therapies Provided by Care Homes Surveyed*

Activities & Therapies Provided by Care Homes	
Art	Massage
Baking	Montessori approach
Bingo	Music
Bowls	Music therapy
Computer room	Painting
Crosswords	Pet therapy
Drama	Poetry
Farm animals	Prayers
Fit for Life	Quizzes
Fitness	Reminiscence
Flower arranging	Sensory garden
Games	Sensory room
Gardening	Snoozelen room
Google maps	Social activities
Google street view	Sonas
Historian	Spiritual
I:I sessions	Tea out
Karaoke fitness	Theatre
Laundry	
Life story books	
Live music	

In general, the manager's description of the care home activities schedule was prefixed by "nothing special", "the usual". This perception of "nothing special" led me to question what conditions were in place for managers to say this. What do they think is 'special'? Do they think it is a 'thing' of the activity that is special and not the manner in which it is done? Are sufficient resources present to support activities? What value is placed on activities and indeed reminiscence in the home?

Emerging issue question 1 – (EIQ1)
What is the value of activities in the care home?

To examine this I firstly considered the resources available for activities and reminiscence to be successful. Telephone interviews with care homes revealed that 83% of homes have a fulltime activity coordinator. It was widely reported that care home activities were for the most part organised in-house by activity co-ordinators but some engaged the resources of outside agents for example, pet farm, theatre companies, live musicians, fitness programme providers and historians. 60% surveyed reported to provide reminiscence as an activity for residents. Sonas programmes and reminiscence were referred to synonymously for some managers in telephone surveys and again in

interviews with activity coordinators. Predominately activities were reported to be group-based and focused on music, bingo, TV or movies, reading aloud or fitness, which reinforces the observation of activities for entertainment. Care home managers reported they "would like to look at new things" with a more "therapeutic focus" and are "interested in new things". I questioned if management supplied input and leadership in the provision of activities? The majority of managers reported that it is the responsibility of the people who work in activities to propose new ideas and the management committee makes decisions to approve/decline. This was an interesting revelation on the organisational culture towards activities in the home.

During care home site visits a copy of the weekly care home activities schedule on offer that week was obtained (see Appendix J), where available. These schedules were generally advertised at the care home reception area noticeboard, in the lift, on the hallway noticeboard or doorway to the dining room or activities room. The schedules were reviewed to quantify and aggregate activities by themes of exercise, entertainment, therapy, and relaxation were found to be objectives of the activities programmes provided.

Table 12. Aggregation of Care Home Activities Provided on Weekly Activities Schedules

	Location 1	Location 2	Location 3	Location 4	Total
Exercise/ physiotherapy	3	1	1	8	**13**
Reading			3	4	**7**
Religion/prayers	2	1		3	**6**
Music		2		3	**5**
Games	3	2			**5**
Crafts	3			2	**5**
Quiz	1	1		2	**4**
Movies		1		2	**3**
One to one			2		**2**
Reminiscence			1	1	**2**
Pet therapy			1	1	**2**
Clubs	1				**1**
Classes	1				**1**
Sonas		1			**1**
Outings			1		**1**

From this snapshot of weekly care home activities schedules the most frequent activities observed to be provided were exercise and physiotherapy related. Following that, reading aloud sessions using the daily papers. Religion and prayers in close third. Music, games and crafts were observed to be popular and evenly balanced with quizzes, movies, one-to-one session, and reminiscence and pet therapy following behind.

In considering the responses obtained from earlier telephone interviews with care home managers, 97% (34 care home managers) reported to have full weekly programmes of activities underway at their homes. Only one home reported they struggled to provide activities and relied on "all voluntary" facilitated activities for residents from off-duty nursing staff or community volunteers.

One care home did not initially provide activities for residents until a staff nurse requested to do something with activities and was subsequently allocated six hours per week to provide an activities programme.

"I went back to do a little part-time geriatric nursing… I suppose while I was nursing I felt like there was nobody doing anything with activities. So I asked her (my manager) would she let me do anything with activities? Which she agreed to do last year" (SSI, MF)

Emerging issue question 2 – (EIQ2)
Are activities reliant on individuals showing interest in providing them?

This account appears to be the minority voice form Irish care homes but, nonetheless concerning for the wellbeing of care home residents especially given the existence of National Quality Standards of Residential Care for Older Persons in Ireland (2009) that outline standards for rights, health promotion, routines and expectations to promote quality of life and wellbeing for residents.

In general most nursing directors are happy with the activities they provided to their residents but, acknowledged limitations, *"more needs to be done in this area… especially for people with dementia".* When I probed, managers reported that they were looking for interventions that could provide more evidence and guidance to identify what approach and tools were best to implement with people with different stages of dementia. Managers were did not elaborate further on details of how they were looking for these interventions or indeed if they had found any. Only one nursing home revealed that they

did not have any issues with delivering activity programmes. This care home manager reported that they did not have the same "problems" providing activities that other homes had because, they make sure that at the time of recruitment, potential candidates are asked if they can "sing" and "dance" and are "willing to involve themselves in activities". He felt that if carers started work with this common understanding that "activities is everyone's role" then this was a recipe for ensuring activities were successful.

"We have 2 activity coordinators on staff. All carers are involved in activities as well so I don't have the same problems as other homes with getting staff involved in activities because at the interview stage all new recruits are asked "Can you sing and can you dance?" and if they are" willing to involve themselves in activities". As I see it activities is everyone's role" (BC, TS)

As a result my questions became less about staff and resources and more centred on care home values and perspectives on activities and reminiscence and what expectations people have from these? In listening to the above care home manager quote, it became evident to me that the manager's intent was possibly to ensure all care home staff are aware of their role in activities, the statement also revealed the managers perspective and value on activities as ***a source of entertainment*** for residents. This was particularly pronounced when he qualified the statement by lamenting the lack of involvement of families in providing or participating in any activities. He gave the example of a bowling alley across the street that families never frequent with residents.

Emerging issue question 3 – (EIQ3)
Why are activities perceived as entertainment for residents?

To investigate values and perspectives on activities and reminiscence further I reviewed the interview responses from the reminiscence practitioners working in older person's care facilities.

The following table outlines the background and demographic details of the reminiscence practitioners interviewed in the pre-development, design validation phase.

Table 13. *Profile of Reminiscence Practitioner Interviewees*

Interviewee	Age	Role	Facility	Technology User Rating	You Tube User Frequency	iPad/tablet device user Familiarity	Experience undertaking Reminiscence
EF	29	Activity co-ordinator	Long term Care Unit	Above average	Once per month at work	Familiar	Groups. Once per week
AC	30	Activity co-ordinator	Acute	Average	1-2 times per week	Familiar	Groups. Once per week
FH	34	Activity co-ordinator	Acute	Average	Once per week	Familiar	1:1 sessions once per week
AE	23	Care worker (in activities)	Long term Care Unit	Average	Few times per week	None	Groups. Once per week
KD	29	Speech Therapist	Long term Care Unit	Average	2 times per week	None	Groups, 2-3 times per week
P	61	Activity coordinator	Long term Care Unit	Below Average "Basic"	Few times per week	None	Groups. 4 times per week
JD	28	Activity co-ordinator	Long term Care Unit	Above average	Blocked at work.	Familiar	Groups. Once per week

The average age of practitioners interviewed was 33years. On average practitioners reported to engage in reminiscence a minimum of once per week with only two users undertaking reminiscence more frequently at 2, 3 and 4 times per week. The activity co-ordinator was the practitioner most frequently undertaking reminiscence at 3-4 times per week. Reminiscence activity was most frequently undertaken in a group format with only one practitioner engaging in 1:1 reminiscence. In general it was reported that 1:1 reminiscence was undertaken only when a participant could not engage in the group context. Level of cognitive impairment was the main reason cited for a person's inability to engage in-group sessions. The majority of users work with older people in long-term care facilities however two practitioners work with older people in the hospital acute care services. All but one practitioner was successful at obtaining access to YouTube in the workplace. An IT management restriction on Internet access was cited as the reason. Interestingly this practitioner was the youngest of the interviewees and also one who rated their ability with technology usage as "above average".

Theme: Activities as a source of entertainment

The notion of activities as a source of entertainment is echoed in an interview with an activity coordinator who advocated for the role of activities coordinator to be

created in the care home that she worked in. She felt that the general vibe in the care home was to "jolly them along", to maintain a level of content within and amongst the residents

"I think there is a sense…in general in the care home that we jolly them (the residents) along and we don't be touching into anything sad" (SSI, MF)

When the conditions around this are explored more it becomes apparent that activities are sometimes used to distract residents from their concerns and worries and the motivation to do this comes both from the activity coordinator and from management;

"A lot of the talk is 'Oh I didn't sleep well or, oh my hip is at me' so it's about distracting them and having a bit of fun" (SSI, MF)

However, the outcome of trying to distract and have fun with people may not always be successful due to the non-participation of residents in this 'fun'… *"Some of them aren't able to have fun, it's like they never had fun in their lives, you know they live that kind of life…life was very hard for a lot of them. They are not able to have fun. It takes a lot of work to crack a smile on some of them and others you have a smile in seconds"* (SSI, MF)

An observation on this perspective could conclude that it is perceived as the fault of the person with dementia if they don't have fun or want to have fun. This drive to keep people entertained or distracted is undertaken through either organized group activities or in a more ad hoc manner in response to specific requests forms the care home manager or family members.

The director of the care home would often say, take Maura, she had a bit of a something happen at home or she was worried about her daughter who is sick or something and she would say take her today and I would but, I would always take whoever was willing to come" (SSI, MF)

For some activity coordinators this objective of keeping people entertained was reported to come from therapist colleagues working in the same facility and with the same residents. In the interview with P, she was proud of her position as activity coordinator and therapy assistant for an older person's long-stay unit and she displayed a strong

sense of value in this role when she revealed that she was the person the therapists turned to when therapy with residents was not successful due to a resident's low mood.

"The therapists come to me and say you know 'so-and-so is in a very low mood, can you make them happy?' (SSI, P)

This annihilation of any emotion other than happiness may be very wrong headed and presents itself as a problem for reminiscence. This was evident not only in activity coordinators perception of their role and responsibility but also in that of their managers. Keeping this in mind, I sought to explore if any one of the activity coordinators interviewed talked about other emotions in association with activities and reminiscence. CH spoke about including resident's whose mood was low in activities.

"V left half way through but she usually leaves most activities I think she is quite depressed at the moment. Her mood is quite low but you know, that is part of the reason I tried to bring her along. I was surprised she stayed for as long as she did. She stayed for half of it. She said she didn't like it and left" (SSI, CH)

Theme: Activities used to engage residents with low mood

Perceptions amongst activity coordinators was that their role is to provide opportunities for persons with dementia experiencing low mood an opportunity to engage in activities.

"A space in the world where they could be happy and forget about the reality of their life" (SSI, P)

This motivation to create a positive and carefree space for residents prompted P to use the video sharing website YouTube as a source of entertainment entrenched in reminiscence by focusing on popular clips with a music and video component to them;

"I used to bring them in and we would have Gene Kelly singing in the rain and Marilyn Monroe Happy Birthday, you know anything they liked, it was just amazing how their mood changed" (SSI, P)

However, outcomes of positivity were revealed to not always be occur with reminiscence engagement, it was acknowledged that sad emotions occur for participants and that these were part of the realisation of personhood and the validation of emotions in a person with dementia. This was evident one activity co-ordinator report on engagement with reminiscence with a resident;

Emerging issue question 4 – (EIQ4)
How are participant emotions dealt with in activities?

"He became very reflective…he recalled some difficult memories from his childhood, being at school, and some unpleasant things that had been at school. Even though we weren't talking about school…it was a theme running through his memories today. He kept saying he wanted to add just a little bit more into his profile so that we would understand him and that not everything has always been nice. He wasn't distressed by it at all really; he was just bringing these up to be acknowledged" (SSI, CH)

Theme: Expression of emotion through reminiscence

The question of the the value of activities in the care home emerged in the interview with MF, who advocated for the role to be created in her care home. Her opinion on the value of activities in the home was framed from her primary role as a staff nurse. She reported the value of activities sat in relation to the value of other daily medical care need for the care home resident;

"I really enjoy the activities but, they tend not to have as high a profile, you know what I mean, as nursing staff. They always need a nurse whereas you can get on without an activities person if you know what I mean" (SSI, MF)

This perspective is interesting as it portrays the perception that activities are of low priority. I am uncertain as to who "they" are? "They" may refer to the residents and, MF's perception that residents need a nurse more than they need an activity coordinator. Or, "they" may refer to the care home management; the perception that in the greater scheme of the daily running of a care home the "doing for" care role of the nursing is prioritized over the quality of life, participation and wellbeing role of the activity coordinator.

Emerging issue question 5 – (EIQ5)
What is the value of reminiscence in the care home?

Current Practices with Reminiscence; Facilitator Discourse

The initial investigation commenced by looking at the prevalence of reminiscence in the home as reported by care home managers. It then progressed to listening to care workers perspectives on reminiscence through semi-structured interview.

The facilitators spoke about their current undertaking of RT practices using physical and digital prompts. It was common for them to run RT in blocks e.g., one 30-40minuite session per week over a six week cycle and in many instances continuously once a week. Each facilitator may work with several groups, in several different locations. It was most common for facilitators to use paper-based objects in these sessions, such as photos, newspaper clippings, and printed images. Physical objects were selected for their texture and smell to stimulate memories, for example shoe polish or lavender. Music and video clips displayed on a TV screen or passed around via a laptop were also used. It was reported that shorter clips were more preferable because these can hold the group's attention for longer.

"For the reminiscence group I think it is better to just have shorter clips…if it is just a short clip you can have conversation around that" (SSI, JD)

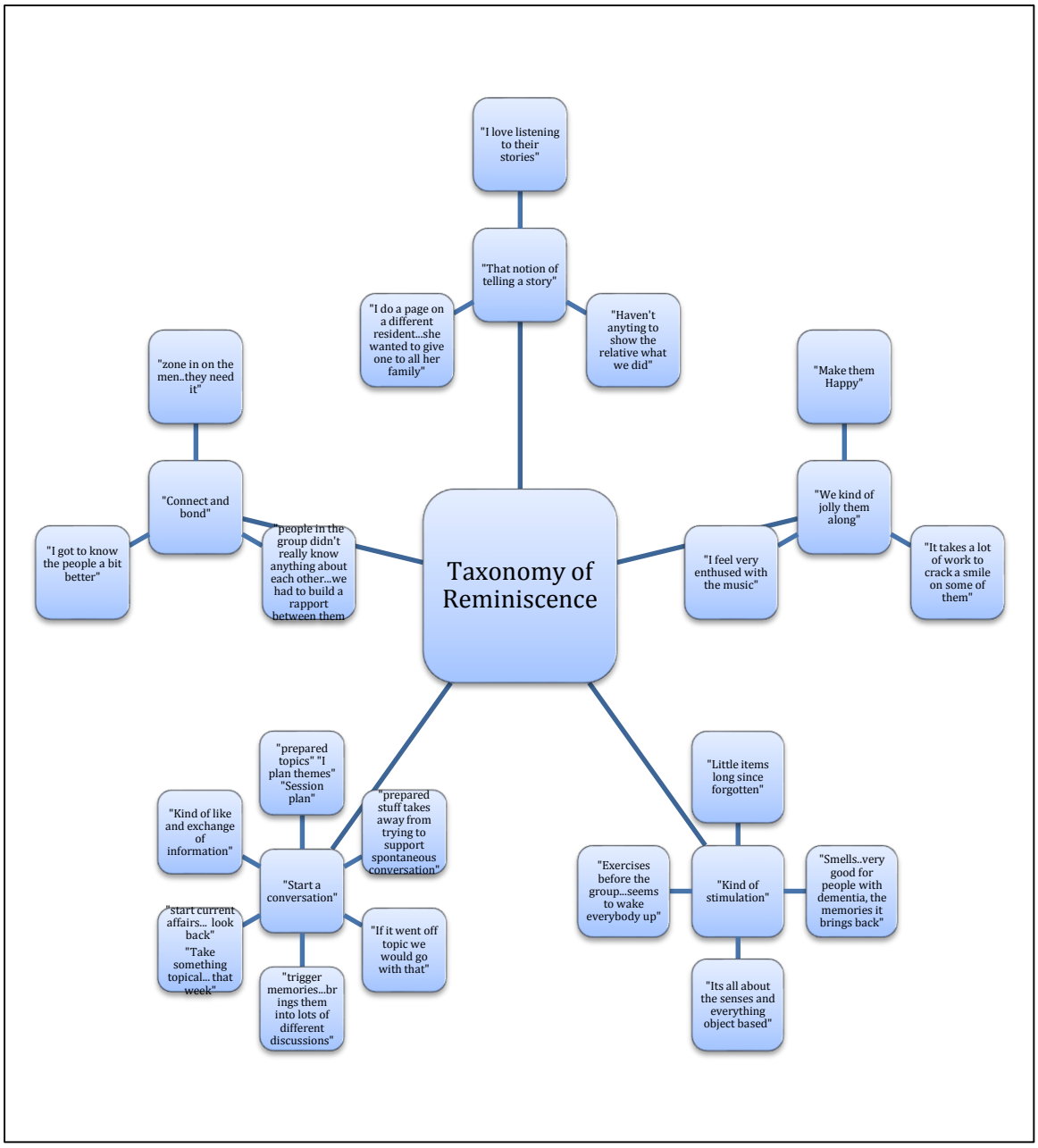
The most common method used by the reminiscence facilitator was to begin with general or current themes. The reason for this was because the facilitator may not know participants' background or interests. Using general or current themes can gently inform them of current issues, such as presidential elections etc. The conversation would then develop from these prepared topics. After the session, the facilitator would write up a report on what material or topics worked well to help prepare them for the following session.

In listening to care workers perspectives on reminiscence, it became apparent that reminiscence in some situations is threatened and in some cases the role of providing activities for care home residents is threatened. Activities are seen as fun and in hard financial circumstances for the care home they risk being cut or under invested. It is

harder to cut such activities when care homes perceive the value of providing activities to upholding the rights of a person with dementia to access these.

I tried to understand the goals facilitators of reminiscence have. This led me to explore further the taxonomy of reminiscence and the motivations for engaging in it as explained by facilitators of reminiscence. An overview of the taxonomy of reminiscence as observed from reminiscence facilitator interviewee quotes is displayed below *(figure 5).*

Figure 5. Taxonomy of Reminiscence



By exploring definitions facilitators have of reminiscence and its function I identified 5 main themes including; connecting and bonding, to tell a story, to start a conversation, for stimulation, for distraction and entertainment. This was of particular importance to helping me understand the varied contexts reminiscence operates in within the home.

Emerging issue question 6 – (EIQ6)
How is reminiscence perceived amongst activity coordinators?

"Reminiscence is kind of neglected really" (EF)

Saying reminiscence is neglected can imply it is of value and that more of it is needed or neglecting reminiscence can be interpreted that it has low value. To clarify this I looked at what conditions are as to why this therapist feels it is neglected. Time is not available for reminiscence? Or resources are not readily accessible or the environment?

The majority of facilitators were found to engage in 'general' reminiscence work that was well prepared and delivered by using a variety of multisensory triggers to stimulate shared conversation on an agreed topic or theme. The topic or theme varied in its relevance to the background and interests of the reminiscence participants. Many facilitators were found to employ the use of generic reminiscence memory triggers from static pre-prepared and re-usable materials.

"We rely more on generic pictures and photos and music, they are just more reliable... you just bring them with you. They are kind of an easy fall back" (EF)

Others relied on **generic multi-media** resources and invested time in pre-preparing a database of content and topics that can be reusable for the reminiscence sessions.

"We use YouTube, Google Images and RTE Archives" (AE)

Some took the perspective of using multi-media content from **contemporary current affairs** as a gateway to stimulating reminiscence discussion on a particular theme or topic in an 'informative reminiscence' approach. The motivation for using contemporary materials from current affairs was revealed as follows.

"The way I felt about it is that a lot of people might not know what is happening in the here and now and they are rated based on that. And that is what all the assessments look at, their orientation and their awareness of the here and now. And it kind of ignores all the knowledge they have, all this background knowledge and they can probably tell you everything from their childhood. So I felt it was a nice way of maybe me bringing something to it, like this is the here and now" (AC)

In this way, the reminiscence participant is seen as someone who can teach and inform others and as someone who provides a valuable social function in terms of oral history. The facilitator's goal was to enable autonomy in the participant by supporting this this.

"It was kind of an exchange of information. So that is just the way I felt about it, so that is why I did it that way' (AC)

Participants are seen as rich sources of information with knowledge to be shared.

Another facilitator perspective was to see reminiscence as a method for conversational engagement for the goal of encouraging communication with other people with dementia and to promote social connection amongst residents particularly amongst the male cohort.

"The men really do need a lot of help connecting with each other, and conversationally they do tend to be quite passive and in a way institutionalized… I really wanted to zone in on the men, I feel they need it more than the ladies do" (EF)

The focus of reminiscence was to reduce social isolation by offering an enjoyable and stimulating activity to provide a way to develop and sustain relationships amongst people.

However, this challenge was reported to be increased if the participants are unfamiliar to the group facilitator.

Emerging issue question 7 – (EIQ7)
What are the challenges in undertaking reminiscence?

"As I got to know them I got to know their background more. But I suppose when I first went into it I probably would have picked something that was happening current and try to relate that to what they came back with" (AC)

And hence, the goal of developing and sustaining relationships came under threat.

A different perspective from one care home activity co-ordinator was to undertake reminiscence for the motive of narrative recollection.

"I have always had an interest in that notion of telling a story. So I suppose I have come at it (reminiscence) with that hat on me. I just love listening to their stories…so when I put it out to the boss, that I'd like to get into reminiscence, she went along with it" (MF)

By examining the conditions in place that lead this activity co-ordinator to frame reminiscence from this taxonomy it emerged that this is strongly driven by both her curiosity to hear the story behind each person for the reward of having what is referred to as a meaningful connection with the person;

"Its often hard to keep them (residents with dementia) on track with it. You just get these little meaning moments with them rather than being able to follow through on stories, because of their cognitive impairment" (MF)

Again this comment speaks to the theme of letting the reminiscence participant lead the activity rather than the activity coordinator. In this situation the activity coordinators desire to learn more about the resident manifests itself by placing an interpretative perspective on a resident's narrative storytelling so as to transmit the knowledge and experience of the person's cultural heritage and personal legacy.

"I started this newsletter…what I started the last month was to do a page on a different resident. For example, some of the resident's was a postmistress in a small village outside XX. And she was there for 50 years. We did lots of stories about people coming into the post office and when she retired the post office was closed down…it is my intention to do a story on their lives. Some of the lives are more interesting than others but I still think you can pull out the bits and bobs… she (the resident) wanted to give one to all her family members" (MF)

Along with intrinsic motivation there appears to be extrinsic pressure to show outputs from this style reminiscence, a product or something tangible for observers.

"It's not easy to show what you've done with reminiscence. I would find that with even the boss she loves to have things to show around what we did" (MF)

This pressure is reported to come from management and families who want to see tangible outputs of care. This created an element of despair for the activity co-ordinator around engaging with narrative reminiscence in comparison to crafts, which are seen by these stakeholders as a worthy activity for producing outputs.

"It's very tangible, you can see it, and it's a definite thing whereas sometimes with the reminiscence you haven't anything to show the relative what they did" (MF)

This threatens reminiscence and makes the goal of reminiscence motivated about outputs;

"That's why with the reminiscence even with scripting their stories shows I'm doing something practical with the story" (MF)

There was a perception that the tangible visibility of reminiscence outputs represents the value of reminiscence in this care home.

"I think the powers that be maybe need it to get them to have an awareness of the value of it" (MF)

To explore the circumstances around why reminiscence is valued or devalued in the care home I looked at what factors influence the use of reminiscence in the care home.

Creating a social connection amongst residents in a group was reported to be a challenge to achieve participation and engagement from members.

"The people in the group didn't really know anything about each other before they came…so we had to kind of build a rapport between them and ourselves too" (SSI, AE)

Building social engagement between people is a challenge in itself and interviewees reported that it was important not to be too directive or confrontational with people with this goal.

"You are trying to include people and not put them on the spot so you are trying to bring them in, and it's just yeah, it was hard, enjoyable but hard" (SSI, AC)

One of the biggest challenges to running RT was reported to be the level of cognitive impairment or dementia experienced by the group reminiscence participant. The varying levels of profiles meant that some residents were quite able to engage with reminiscence and others needed a lot of support or, perhaps they did not want to talk?

"I think probably trying to facilitate people with different levels. So some people might be quite able and maybe want to talk quite a lot whereas others might need quite a lot of support" (SSI, JD)

In some situations group dynamics can increase the challenges of finding appropriate reminiscence content. Another facilitator responded that considering age profiles was an important factor for ensuring a balanced approach to content was achieved.

"The group is often made up of some people younger and older and slightly older people too so you are making sure you are getting something balanced for everyone" (SSI, KD)

Getting people to reminisce was reported to be a challenge if the participants are unfamiliar to the group facilitator.

"We didn't know anything about their background or what happened in their lives. We were trying to look up things from the internet like timelines for what would have been happening and going on in the world during their lifetime so we could prepare for the groups" (SSI, AE)

Overall getting to know the person was revealed as integral to the success of the reminiscence process and experience. For some this was the starting block that needed to be in place to engage in reminiscence.

"You are very dependent on having good background information on the client to start with if they are not able to produce a lot of the information themselves" (SSI, FH)

For other reminiscence facilitators, getting to know the person was viewed as an output to achieve form the reminiscence.

"As I got to know them I got to know their background more" (SSI, AC)

Ironically however, for one healthcare worker, being familiar with people presented a new challenge for avoiding staleness in the reminiscence sessions.

"In the long term care units those residents would be in the same groups for years. That's why I start with current affairs. Because, when you have known and talked to the same

group for 2 years you can't draw often on their interests anymore because you can't, you just don't know any more specifics" (SSI, KD)

Reminiscence interaction could be more akin to mining information from participants rather than basing it simply on meaningful communication interaction to promote personhood.

The level of disability in communicating personal information on the part of the participant is perceived as the factor that decides on what content to use to engage people in reminiscence.

Engaging the participant and/or the people that are most familiar to them was reported to be necessary to access personal knowledge.

"Having good background knowledge means having good meetings with the family as well" (SSI, FH)

If topics have not been planned out and researched in advance, the level of cognitive impairment and initiation on the part of the participant is seen as a limiting factor to engaging people in reminiscence to interact in unscripted reminiscence. As a result finding suitable materials for the participants becomes a greater challenge for the facilitator.

"I think that is an issue when you get to advanced cognitive levels. You run out of ideas. So something that would direct you to other things would be useful" (SSI, FH)

Even more challenging for facilitators is when people with dementia are unable to express their preferences thereby, limiting the ability of the facilitator to tailor and improve the content to meet participant interests and expectations.

"They (the care home residents) don't tend to have strong feelings when they see the first image of a clip. I have given them a choice of we can watch a clip about this or this. In my experience from observing some groups it just sort of falls to me to decide. Maybe in a different group, in a different setting things might be different but, in my experience a lot of the time it is kind of me making the call" (SSI, AC)

The problem of finding relevant reminiscence content was common amongst all facilitators interviewed and the reasons supplied included; lack of knowledge about the older person, inability of the older person to recall information, lack of initiation with topics, difficulty finding content relevant for the group, time required to find, limited resources available.

As a result, reminiscence can be time-intensive and costly in terms of preparation and delivery.

"I would like to have less time needed to prepare" (SSI, KD)

Getting people with dementia to take more ownership over the topic of conversation than a physical set of materials brought in by the facilitator reported was reported to be challenging;

"We find it very difficult to get people to make a choice or even come up with topics. Now whether that is because they have a cognitive impairment and find it difficult to think of things…" (SSI, KD)

Traditional set resources used for reminiscence were reported to lack novelty and spontaneity and risk becoming repetitive and routine for the user and the participant.

"A lot of our materials would be quite static and in ways a lot of the materials we would use would be quite repetitive which isn't always a bad thing but, you know you are sticking to what you know because you have your own work in co-ordinating the group and making sure people participate that, to keep it static is kind of reducing your own workload" (SSI, EF)

The ease of existing approaches and the repeatability of them are seen as advantages for the reminiscence provider. However, on the other hand there is a shortcoming or disadvantage to having an easy fall back option in that it becomes repetitive and routine for the parties involved.

Getting to know a person was reported to be possible when reminiscence was focused on generic collectively shared episodic events from the present that that had a connection to the past.

"If I start to open things with here it is, here is an introduction, that kind of triggers things rather than putting them on the spot and saying what is this? Have you seen this before? Who is in it?" (SSI, AC)

It was reported that this approach *"takes some of the pressure off"* participants;

"If they have knowledge on a topic then they are free to open up on it but they are not put on the spot to try and select a clip or select a topic or pull something themselves" (SSI, AC)

The motivation within group members to share information about themselves and their capacity to share information about themselves was seen as an additional factor for the facilitator to manage and negotiate.

"Because the people in the group didn't really know anything about each other before they came… so we had to kind of build a rapport between them and with ourselves too" (SSI, AE)

The potential of reminiscence to evoke sad memories in residents is reported by one facilitator to be a factor that influences a resident's desire to engage in reminiscence.

"Some don't like reminiscence from the point of view they kind of feel sad" (SSI, MF)

However, in the absence of having observed or recorded this from the perspective of a resident it is unclear if sad emotions are unpleasant for the resident or unpleasant for the activity coordinator or both? As a result this influences on the practice of reminiscence within the home. When exploring the conditions in place around this statement, the facilitator explains that the general care home motivation with activities is to keep residents content.

"I think there is a …in general in the care home, we jolly them along and we don't be touching into anything sad." (SSI, MF)

The perspective was that evoking sad memories is somehow either not in the best interest of the resident or contra-indicated for the role of the activity co-ordinator presents itself as another threat to the existence of reminiscence in the care home. This was teased out more with the interviewee;

"The way I see it, life has happy and sad times and it's the whole ball of wax as it were. Don't allow the sad times to stop you looking but some of them do. It's like the sad event overshadows all the other good events. And it's hard to get past that. It's hard if they don't even want to come to reminiscence and you can't even look at that. There would be that perception I think with reminiscence that wouldn't be there with say doing crafts" (SSI, MF)

Whilst the facilitator reported to be comfortable with reminiscence and it's potential to unearth sad memories, they felt that this potential is what makes residents reluctant to engage in it and hence, creates the threat to her engagement in reminiscence. The activity co-ordinator contrasted the resident's reaction to reminiscence with their reaction to crafts. The perception was that engaging older people in crafts causes least upset. This perceived risk of upsetting people by facilitating them to engage in reminiscence presents as a threat to the existence and practice of reminiscence in dementia care.

Summary

The initial part of this study seeks to explore the presence or reminiscence as a psychosocial therapy in dementia care in Irish care home. Data from telephone interviews, face-to-face interviews and document reviews were analysed to explore the visibility of reminiscence in the care home context. Seven issue questions emerged from the data.

Emerging Issue Question 1: What is the value of activities in the care home? The majority of activities in care homes are group-based. Exercise and physiotherapy were the most frequently cited activities on a sample of weekly schedules reviewed from care homes. This was followed by reading, religious activities and music. It is largely the responsibility of activity coordinators to look for new ideas for activities and resources. However, final decisions on approval are made at a senior management level. Activities were reported to be not as highly valued as nursing care for residents in the care home.

Emerging Issue Question 2: Are activities dependent on care home organisations providing them? 84% of care homes surveyed had a full time activity coordinator on staff. In one care home location a staff nurse lobbied the care home manager for hours to engage in activities and no designated hours were available to the care home residents.

Emerging Issue Question 3: How is the provision of activities to residents perceived? Activity coordinators report that colleagues and management often request input from activities to cheer up or distract certain residents. One care home manager identified that activity staff must be able to sing and dance in order to fulfil the role of activity coordinator. When reflecting on the potential for a multimedia technology-assisted reminiscence system one activity coordinator described it as "total entertainment for residents".

Emerging Issue Question 4: How are emotions dealt with in activities? Looking back can also be associated with a sense of what has been lost and cannot be recovered and can reframe the now as something less than what it might have been. Reminiscence facilitators report to have difficulty knowing how to react when residents reminisced as though they were in past sad situations. One facilitator revealed that residents don't like to touch into sad memories and in general the motivation is to "jolly them along".

Emerging Issue Question 5: What is the presence of reminiscence in activities in the care home? Reminiscence therapy is not universally present in care homes. For those that do undertake reminiscence, this happens once per week and always in a group context. Reminiscence materials have mostly been gathered over the years. Sometimes technology is used to retrieve or display reminiscence content, mostly music or video based (see Appendix L Sample Reminiscence Resources).

Emerging Issue Question 6: What is the perception of reminiscence therapy? Exploring facilitator definitions and functions of reminiscence identified 5 main themes of connecting and bonding, telling a story, starting a conversation, stimulation, distraction and entertainment. When exploring the uptake of reminiscence amongst activity coordinators, reminiscence is reported to be neglected. This is because other activities or events demand the activity coordinator time.

Emerging Issue Question 7: What are the challenges undertaking reminiscence in the care home? Facilitators commented on the challenge of preparing for a group RT session when they do not know the participants' social history or interests and the heavy time investment in finding suitable, meaningful content for reminiscence. This is most likely greater at the beginning, as each week the facilitator learns about the group members

lives and interests. Challenges existed in retrieving content suitable for reminiscence, maintaining engagement form reminiscence group participants and fostering social engagement amongst participants.

4.3 How visible is technology in the Care Home?

This second question reveals further details on the issue of technology in context of the care home and the current practices and approaches with technology. The purpose of the telephone interviews with care home managers and exploratory interviews with reminiscence facilitators was to understand not just current activities and RT practices but also the types of technology, if any, used in these practices, and any. Challenges that facilitators experience during these sessions. Participants were questioned on their familiarity and usage of technology and different software resources and hardware devices both in their personal lives and in their professional workplace. The interviews were semi- structured in format. A standard set of questions was asked but, if the facilitator introduced a new topic, this was further explored. The types of questions that the facilitators were asked included: *what types of technology do you use for activities and reminiscence? How and why do you use technology? What challenges do you experience?* The interviews were audio recorded and later analysed for emerging trends. The findings are divided into four categories: background & context, technical skills; current practices; and technical challenges.

Background & Context: Care Home Technology Resources & Infrastructure

The telephone interview with care home managers highlighted internet access is almost universal with 94% having access. However, access to Wi-Fi was at 77% and was generally localized within the care home to administrative zones i.e. managerial office, reception or the nurse's station to enable Internet access for resident digital record keeping, medication management, supplies management, general administration and communication. 83% of homes surveyed had access to a group room for group activities with big screen television. In considering the care homes that had Wi-Fi or Internet access, the availability of the internet rarely extended into resident living zones for resident usage. Despite 94% of homes having access to the Internet, only 23% of care homes utilized technology for activities. When this was probed further, reasons reported

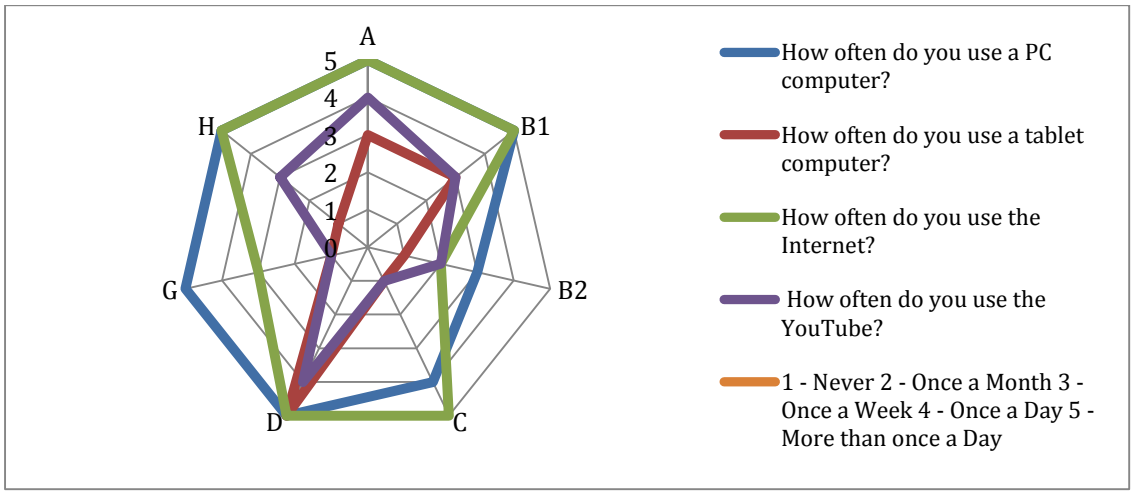
were access and availability of PCs and laptops within the home, access and availability of software resources, restricted or no access to Internet, restricted or no range of Wi-Fi into resident social spaces.

Some homes had a computer in the resident group room or had a designated separate study/computer room available for residents to use. In two homes, a small number of residents owned their own iPad. This was supplied by their families for entertainment and social contact.

Technical Skills

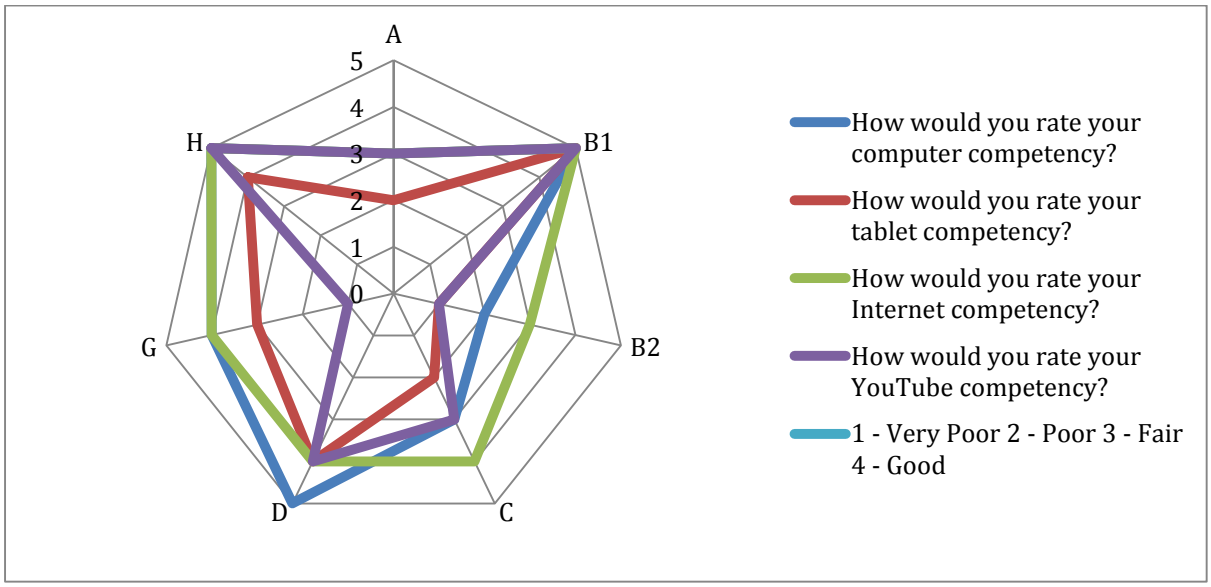
Participants were questioned on their familiarity with and usage of technology in their personal lives and in their professional workplace. From the initial interviews, I learned that the facilitators had different levels of self-rated technological expertise. This ranged from novice (n = 1), average (n = 5), to above average (n = 1) skills, and some (43%) had little or no exposure to using tablet PCs. There were varying levels of exposure to video sharing websites (YouTube, RTE Archives). This ranged in use from twice a week for RT sessions to not at all. When examining the frequency of computer versus tablet use amongst activity coordinators, computer usage was rated comparatively higher than tablet usage for all but 1 activity coordinator (*graph 1*). This presented as an interesting observation for consideration of potential challenges for introducing an Internet enabled reminiscence therapy application via a tablet computer. Mostly people used PCs only and not the internet.

Graph 1. Frequency of technology usage amongst field study activity coordinators



When questioned on how activity coordinators rated their computer, tablet and Internet competencies respectively, it was interesting to observe that those who reported low tablet usage frequency reported higher levels of tablet user competency (*graph 2*). Higher competency levels than frequency of usage levels was also reported for YouTube. This observation might suggest that whilst tablets and video sharing applications are less frequently used they are easy to use when used. So even though they did not use tablet devices very much they did not perceive it as being a challenge.

Graph 2. Self-rated competency with technology amongst field study activity coordinators



Despite this gap in usage between PC computers and tablet computers, all participants embraced the idea of using a tablet device for using online videos as stimulus to help them conduct group RT sessions.

Current Practices with Technology

Whilst the facilitators spoke to me about current RT practices being most commonly undertaken by using physical prompts, the use of digital prompts was also reported.

> *"I would use paper-based but if that wasn't working or if there was some issue then I would probably go to the Internet. But, I would go to paper-based first" (SSI, AC)*

The most frequent digital prompts used were, music tracks or video clips displayed on a group TV screen or passed around via a laptop. It was noted that shorter clips are

preferable because these can hold the group's attention for longer if the goal of the session is to reminisce or converse. Otherwise, longer programs such as televised mass on Sunday, the news or a movie were played on the group television. One reminiscence facilitator had amassed her own collection of reminiscence videos focused on the theme of Irish culture and heritage. For example, "A day at the Forge", "Old Crafts & Customs of Ireland", "The Country Ceili", "The Way I Remember it" and more. Images of these videotape covers are located in Appendix K. The videos were acquired directly or through donations from families.

For those that used internet-enabled technology to engage residents, the applications used were; Skype to contact family, Google Maps and Google street view to look up homes lived in and those of family members abroad. RTE Digital Archives to watch footage from the past. YouTube to look up video and music content. One home reported that they "tried the Nintendo Wii" for exercise but, it was "unsuccessful".

Technical Challenges

The workplace was revealed to be the environment that presented the most challenges for users of internet-enabled technologies. Primarily due to Internet access restrictions, Internet connectivity issues, slow Internet speed and sometimes hardware access.

"The technical side of it can be quite difficult, particularly in the hospital setting" (SSI, EF)

"Internet speed, internet going down, sometimes the internet would be blocked and you would have to ring IT to unblock it and then you mightn't be able to do it right away and then you don't know if you should cancel the group or try and go ahead so, yeah it was tough" (SSI, AC)

The facilitators reported experiencing several challenges when using technology in the reminiscence sessions. For example, restricted availability of internet in the care home meant that reminiscence was limited in its flexibility and spontaneity and needed to be planned in advance. Some locations also have blocked access to certain websites, including YouTube, and facilitators have had to acquire permission to access it but this is not always successful. The problem

Emerging issue question 8 – (EIQ8)
Are there barriers to using technology in reminiscence?

was resolved in some locations where access to Internet content was considered necessary for activities and therapy.

"We don't use YouTube at the minute as it is being blocked, I couldn't get around it… I run a few reminiscence groups and you just can't get any video clips at all. I haven't been able to get any so far. I can get some audio clips and things like that but I have not been able to get any video clips. We haven't be able to get any access to it…we have got exemptions for Google images and pictures and stuff like that" (SSI, JD)

Another challenge that facilitators experienced was availability of additional hardware to support older persons engaging with technology. Group participants require a large screen and speakers with high volume to accommodate those with vision and hearing difficulties. One facilitator said that without these supporting resources she must pass the computer around the group so that each of them can see it or huddle together around a laptop.

"I was using a netbook so the screen was quite small. So ideally the screen size should be a TV screen size and that would be better " (SSI, EF)

This created additional pressure for her in trying to maintain interaction with the group and manage the multiple distracting elements around technology. Having a bigger screen size and more automatic functions to enable the management of thee digital content for reminiscence was identified by EF as a solution that would enable her to spend her time better with the group participants.

"I could spend my time better, coaching people, or facilitating people or encouraging them to participate. So basically it is more just the practical element of using video that is difficult" (SSI, EF)

Another facilitator felt under pressure using technology in a group context for reminiscence. This pressure came from the need to be prepared and keep the momentum going with the group and demands to save and record items watched by the group.

"I was kind of under pressure to be thinking of the next clip. What we were supposed to do was save the clips as they were watched, during the session, but I never had the free time. I

used to always stop and do it after the session. Because, I felt I was trying to keep a conversation going and I didn't want to be trying to do technical stuff and trying to figure it out during the session" (SSI, AC)

Pressure for the facilitator also came from the need to maintain the conversation with the group, ensuring all participants are included, while also trying to prepare material for the next topic.

"Conversations move really quickly so you are trying to catch what Mary has said and look up something for that really quickly to acknowledge this before John takes over and says something to move on to another topic. So you might be trying to focus on the people and not to miss anything to give them all an opportunity" (SSI, AC)

For another facilitator the experience of integrating technology into their reminiscence practice created challenges from the **practical perspective** of using technology.

"The one time I said I would give this video thing a go and see how it works out but, it was quite difficult in a practical way" (EF)

"There are a lot of things to manage at the same time. Where if some of the technical problems were taken away there would be less" (EF)

The sentiment emerging is that **technology can take from the experience by placing demands on** the facilitators to give time and attention to the participants.

"I could spend my time better, coaching people, or facilitating people or encouraging them to participate" (EF)

Emerging issue question 9 – (EIQ9)
How can technology help reminiscence?

Ultimately, facilitators identified their main role as being, to facilitate the people. However, coordinating and controlling topics and materials appeared to be an important factor for facilitators. I questioned why this was?

Facilitators told me that most of their working time is spent preparing materials for sessions, searching for appropriate material based on previous discussions or known

preferences of group members. Currently, the practice is to prepare a number of video clips prior to the reminiscence session to validate that they have good visual and sound quality. These are used as a fall back strategy if other videos retrieved from the Internet, during a group session and based on the narrative flow of the group are not successful.

"I suppose personally I would always feel that I would like to know what is coming next before the clip they are watching ends. And sometimes with clips the person might loose interest or they might have had enough so you might actually cut it off in between" (SSI, AC)

This was reported to be necessary to increase facilitator's confidence that the material would stimulate conversation; however, it was acknowledged that this approach meant that topics were fixed and did not allow for spontaneous deviation.

"I would try and prepare stuff but, that takes away from trying to support spontaneous conversation and support people with suggestions they come up with and when I looked stuff up beforehand I kind of ruled that out because I decided what they watched" (SSI, AC)

A number of facilitators had used video websites (such as YouTube) during their sessions. They reported difficulties in finding good quality content for older generations.

"There are many videos that don't work or aren't good" (SSI, KD)

"My patients are much older and very often there isn't that much stuff available for older people on YouTube to match what they are talking about. There is an RTE Archive that is full of videos and we found that useful…stuff from the 50's" (SSI, KD)

Internet-based content is used to both stimulate and support online spontaneous discussions between group members. This creates a challenge for the facilitator to keep pace with the deviations in topic so they can keep up with the conversation shifts and slow Internet speeds can limit this.

"The internet is too slow. By the time I find and search for something…the conversation has moved on" (SSI, KD)

For some facilitators the biggest challenge to using technology in the care home for

reminiscence was the simultaneous multi-tasking required to both find good quality relevant content and manage to keep the conversation going with the group.

"You could end up having a moment's silence where you are saying 'I'm just looking at something here' and they would just be sitting there waiting" (SSI, AC)

The fear disclosed here is that participants would lose interest. This became a threat for activity coordinators as technology and its challenges threaten the reliability of the reminiscence they are attempting to undertake.

Summary

The facilitators reported on the challenge of using technology in the workplace and the challenge of using technology within a group context.

Some of these challenges are resource and infrastructure related and in many cases were reported to be beyond the sphere of influence of the activity coordinator. Others relate to the administration and running of group reminiscence sessions and the challenges with content management and record keeping for these sessions.

These findings highlight how facilitators would benefit from having access to a system that is firstly, easy and quick to use in terms of preparation and delivery of group reminiscence and secondly, tailored to the care home setting and diverse interests of the residents. Facilitators hypothesise that this management of content might allow individuals with dementia to take more ownership of the topic of conversation than a physical set of materials brought in for reminiscence. In the next question of what happens when technology and reminiscence are mixed together, I will evaluate whether or not the facilitator needs were met by the REMPAD system.

4.4 What happens when technology and reminiscence are mixed together?

To consider what happens when reminiscence and technology are paired together, I firstly went back to look at what expectations for a technology enabled system had been communicated in the initial pre-design phase interviews with healthcare professionals. Interview responses from the handful of facilitators who had used technology in their own ad hoc ways to facilitate reminiscence were reflected on with consideration for

listening to facilitator user needs from technology to enable reminiscence with older people.

Background

When asked what an ideal system would look like during interviews with reminiscence practitioners the ideal described for the application of technology in reminiscence by one practitioner was.

"Something that will take account of peoples preferences and kind of build repertoire or recommend different videos our music or whatever based on what has already worked…. it takes the work away for the therapist" (SSI, EF)

Emerging issue question 10 – (EIQ10) Does REMPAD take some of the barriers away?

Embedded in this ideal is the notion that technology will bring the advantage of **promoting greater awareness** of the individual participant by fulfilling the goal of **person-centeredness** whilst at the same time **reducing the workload** on the facilitator;

"If you had something that was going to do the work for you and suggest things for you I could see it being used quite a lot" (SSI, EF)

Does technology enable users to be more person-centred in their reminiscence practice? The motivation for reminiscence facilitators was to steer away from*"…dictating what is in the group" (SSI, AC)*

This rationale was to enable greater spontaneity on the part of the facilitator and greater freedom in conversation amongst reminiscence group members and between members. Because, despite the fact that some used technology practices for the retrieval and display of reminiscence material to group members there was an acknowledgement amongst facilitators that this was not truly person-centred;

"I would try to prepare stuff but that takes away from trying to support spontaneous conversation and support people with the suggestions they come up with" (SSI, AC)

So, in the absence of a system that is responsive to the person in the group and their individual interests the interesting question of group member autonomy when reminiscence is carried out in a pre-planned, scripted, guided manner is raised;

"When I looked stuff up beforehand I kind of ruled that out because I decided what they watched" (SSI, AC)

For another facilitator having a few videos that were familiar to the user in advance, and known to be based on topics or themes that were of interest to the participants was seen as a necessary first starting point to beginning the technology enabled reminiscence process;

"We picked a couple of topics just to have a base to start off with. Maybe like the 60's. We picked a couple of videos but then as the conversation got going people would remember other people and singers that we wouldn't know of and they would suggest can you find anything about this person and we would look it up then" (SSI, AE)

For one facilitator, the challenge of engaging and maintaining participant attention whilst facilitating the engagement of group members was highlighted.

"It was difficult from the point of view that a lot of them had visual problems or hearing problems so we had to have things quite loud or have a big screen so it was a lot of moving the group around. If you were hard of hearing we would move people closer to the speakers, if they had visual difficulties you might have to be directly in front of the screen" (SSI, AE)

A blend of multi-media resources was provided by the REMPAD system to deliver content relevant for older participants rather than depending on one multi-media resource alone.

Emerging issue question 11 – (EIQ11) Is REMPAD useful in stimulating memories?

"We found for the Irish population there wasn't a huge amount of videos. If we used Google images we found pictures from their childhood or pictures of weddings from their era, it was really enjoyable for everyone" (SSI, AE)

This raised a fundamental question about technology enabled reminiscence; does having technology make reminiscence less of a formal thing? Does reminiscence become more spontaneous, flexible, responsive to people and engaging for people? Or, does the use of technology in reminiscence make reminiscence less accessible? Can technology in reminiscence be perceived as an enhancement to reminiscence practice or a restriction? To look at this question further the data from the field study phase of introducing REMPAD into care homes is considered.

Emerging issue question 12 – (EIQ12) Does using REMPAD conflict or complement existing practices of reminiscence?

Field Study

The REMPAD system was tested over a total of 54 sessions with 7 facilitators in 6 different locations over a period of seven weeks. The facilitators used video clips recommended by the REMPAD system. These were curated by the research team from YouTube. The purpose of the field study was to investigate the usability of the system and the experiences of reminiscence facilitators and participants. The research team was also interested in investigating the performance of different configurations of the REMPAD recommender algorithm, the results of which are discussed in a published paper (Bermingham et al., 2013a). The facilitators engaged in a post- study semi-structured interview on the experience and also completed user experience questionnaire to obtain feedback on the perceived usefulness of the system. Their satisfaction with the system output and the overall usability of the system. Group members were surveyed for their satisfaction with participating in technology enabled reminiscence sessions.

A record of REMPAD group sessions undertaken across each of the 7 groups is displayed in the table below (table 14).

Table 14. Record of REMPAD Group Sessions

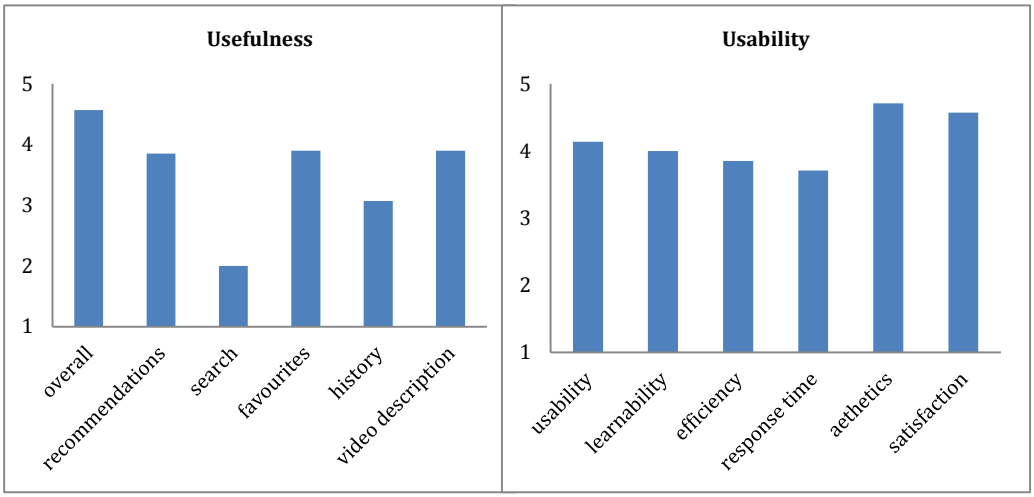
Group	Sessions Completed	Total Videos Played	No. Videos played per Session
A	4	21	5.25
B1	9	59	6.56
B2	9	61	6.78
C	6	55	9.17
D	11	72	6.55
G	5	26	5.2
H	10	68	6.8
TOTAL	54	362	
Mean	7	51	6.61

No care home achieved the goal of completing twice weekly sessions (14 sessions) over the 7 weeks. The average number of sessions undertaken in a care home was once per week. I wondered why this was given facilitator's initial strong enthusiasm and motivation to engage in twice weekly REMPAD reminiscence sessions on the first site visit. The reported reasons for cancelling sessions included; presence of winter vomiting bug in the care home limiting group engagements, devoting extra activity time to preparations for Christmas season crafts and celebrations in the home, Wi-Fi connectivity issues, limitations on access and availability of laptop to connect to REMPAD.

Overall, 362 video clips were played during the RT sessions with an average of 6 clips played per session. Sessions lasted between 40-60 minutes in length with discussion time amongst group members and group facilitator included. The facilitators reported the main benefit of REMPAD as being; easy to use and requiring no preparation time. They also said that the group participants responded positively to the system, many being excited about seeing new technology. Facilitators were asked to rate the usefulness and usability of the REMPAD system for supporting reminiscence on a 5-point Likert scale. The results are depicted in Table 15.

Graph 3. Participant's reports for the usefulness of REMPAD features (left) and the usability of the system (right) are represented on a 5-point Likert scale from negative to positive (1-5).

Table 15. Participants reports for the usefulness of REMPAD features (left) and the usability of the system (right), 5-point Likert scale from negative to positive (1-5).



Overall the feedback was very positive. The facilitators found that the automatically recommended videos worked well for the group participants and the group as a whole. The feature that enabled users to search freely for new topics or suggestions from the group was rated as not very useful and it could be seen from the activity logs that this feature was rarely used. This suggests that either participants did not request or suggest for any alternative material from that which was recommended by the system for them or, that facilitators were not familiar with this feature and hence did not use it or, that there was no opportunity or need to use it. When users were probed further about this, it was reported that the 'fascination' element of REMPAD being so new and different for the group members was perhaps the reason that participant were not forthcoming with topics or suggestions. Furthermore, earlier in the pre-design interview phase with facilitators it was reported to be uncommon for group members to have any suggestions of topics for discussion. These findings suggest that technology-assisted reminiscence should be used over a period of time to allow participants to adjust to the technology and increase the opportunity to experience therapeutic benefits from it.

The usability, learnability, efficiency and user satisfaction with REMPAD was all rated highly. However, intermittent problems did arise. For example, slow Internet connection in three of the locations meant that in some situations the videos took time to load and

the therapy participants would lose interest. Problems with the sound being inconsistent were also reported. These challenges and others are expanded on more in the next section on challenges.

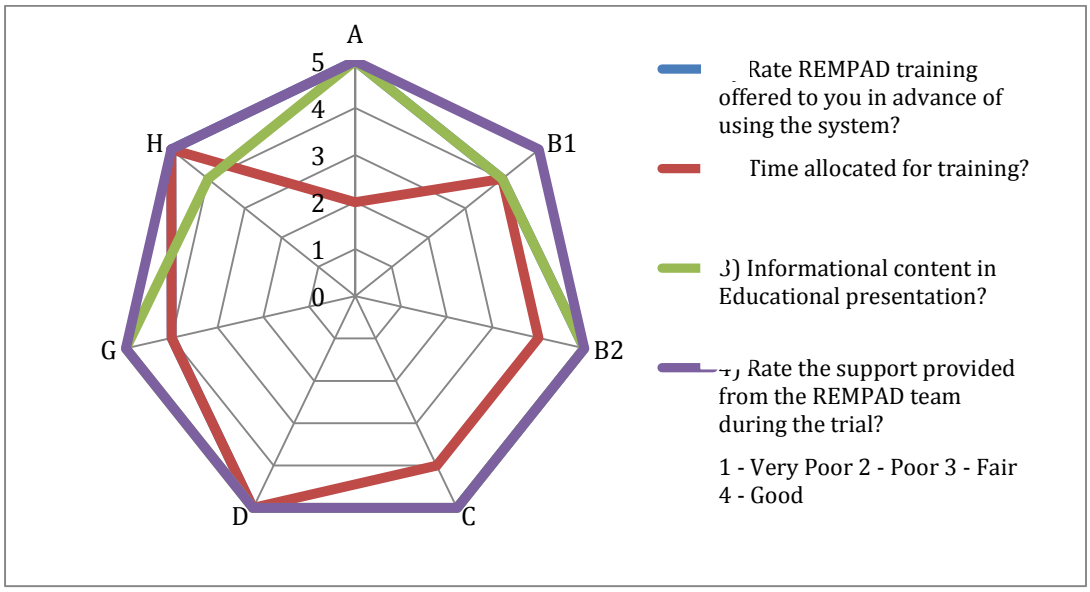
In summary, the field study provided us with a deeper understanding of how a multimedia recommender system was used within group reminiscence sessions. It revealed broadly positive results on functionality.. However, to consider what this does to the experience or reminiscence is also hugely important and information on this is yielded from interviews with reminiscence facilitators and participants. This is considered from the two themes of challenges and benefits. . This leads me to discuss just what it is about technology enabled reminisce that makes it special or different? Is it the access to content, the touch of a button phenomenon, the time saved, and the entertainment derived? Does REMPAD help ease the burden of therapy delivery? Or does having a technology for reminiscence make it more of a formalised thing?

Challenges

The first challenges for the use of a technology enabled reminiscence system in the care home environment were lack of supporting infrastructure including computers, tablets, up-to-date software and WI-FI. This was evident in the recruitment process for user study of the REMPAD system where only 60% of homes initially approached could participate due to technical resource limitations. This was in contrast to the initial telephone interviews of care homes that found reports of WIFI availability in 77% of homes. However the use of technology in activities was present in only 23% of homes.

Self-reports from care home staff also revealed staff are challenged in their technical expertise with computer setup and operation. This was observed during site visits out to homes during the study phase. Difficulties in set up (connecting the group display screen to the computer and syncing the iPad and computer screens) and operation (remembering to log out) were observed despite initial training and demonstrations in these tasks. Upon completion of the field study an evaluation of the training and support provided during the study phase was undertaken (Graph 4). The results showed that whilst overall users were satisfied with the training and support they received throughout the study, many felt that more time was needed for initial training.

Graph 4. **Radar Graph of facilitator rating of training and support provided during field study to care homes**



Another challenge for integrating technology into reminiscence practice was the care home staff perception towards technology and their self-rating disclosure that "I'm not very technical" and concerns for the reliability of technology, *"does it work?"*

Facilitators reported that REMPAD was easy to set up and use.. Features such as; logging in, setting up participant profiles, making groups, choosing relevant videos and entering video feedback were all rated positively by the users. It was also found that the visual quality of videos was consistently good.

Key problems that arose for reminiscence facilitators using the system were user errors, Internet connectivity and system features. A thematic grouping of these challenges is displayed below (table 16).

Table 16. **Thematic Grouping of REMPAD User Quotes on Technical Challenges**

Theme 1: User Errors	***Theme 2: Internet Connectivity***	***Theme 3: System Content***	***Theme 4: System Features***
"Wrong button pressed at times"	*"Unable to recover when system goes down"*	*"Video and sound quality wasn't consistent"*	*"Group started, couldn't edit attendance"*
"Few Mistakes, Nothing major…I just put it down to being new to the system"	*"Internet went down, once went down near end of session"*	*"Too much music, not enough variety in recommendations"*	*"Saving feedback without ending the video"*
"Hit play by mistake, couldn't get back"	*"Internet connection was poor, slow, sporadic"*	*"Clips can be too short, Find similar clips, Consistency between reminiscence period"*	*"Couldn't get back to watch both videos, Enter moods into feedback"*
"Very easy for non-technical user"	*"Loading times, slow response"*	*"Would like to add personal video"*	*"Mismatch of image and description, Fine tune feedback, some love a clip while another fell asleep"*
"Life history is already taken so social profile is already know"	*"If technical Issues dragged on, residents would leave"*	*"Spelling was poor"*	*"Could not access profile for latecomers"*
	"Need to have available space, functioning Wi-Fi connection"	*"There was a lot of things I didn't know what they were even after I read what they were. Descriptions could be better. Little bit more info"*	*"Didn't know what purpose of feedback was. When I went back I couldn't see the results from that"*
	"Personal enjoyment, frustrated with internet, positive overall"		

In reflecting on the initial pre-design interviews with reminiscence practitioners, technology was viewed to be **unpredictable and unreliable** when trying to implement it for the purposes of supporting group reminiscence.

"It was hard to do that online (search for video clips related to member conversation) because we didn't have the best Internet connection, it wasn't very fast. There could be a few minutes while we were searching that the conversation kind of stalled because we would be waiting to see if we could find a video or a picture of what they requested". (SSI, AE)

Internet connectivity and speed was a reoccurring theme of frustration in practitioner's dialogue and technology becomes challenging and redundant in activities if not supported with reasonable Internet access.

Benefits

In exploring the benefits of having technology and reminiscence mixed together, these benefits included the enjoyment derived by people with dementia from viewing the various forms of multimedia. Increased opportunities for interaction and greater ability to take ownership of the conversation. ICT benefited reminiscence facilitators by reducing session preparation time, making increasing availability of reminiscence and providing opportunities for sharing of knowledge and information amongst residents and staff.

Emerging issue question 10 – (EIQ10) Does using REMPAD reduce barriers to reminiscence?

Table 17. *REMPAD benefits extracted from manager letters*

Manager Benefits	Facilitator Benefits	Resident Benefits
	Personal enjoyment, frustrated with internet, positive overall – Site A	*Conversation continued after the session between members – Site A*
		Residents engaging, they got a lot out of it. Some would recognize content they had seen before – Site B
Added value to our programme of activities. Site C Reminiscence more meaningful and accessible - Site C Structured framework and measure enjoyment and interest in the activity - Site C We have found that the sessions provoke great interest and discussion amongst residents, not only for those involved in the study but for those who come in contact with the study participants - Site C	Personal enjoyment	Improved sociability in residents - Site C Groups really love music
	The residents and I really enjoy the experience – Site D	"Enables residents to access memories they have re: clips they have seen. This in turn enables the resident to discuss these memories with the rest of the group and soon turns into a group discussion or a sharing of memories/stories" – Site D
	"Obtaining appropriate triggers, pictures and other stimuli proved time consuming and repetitive, the easy access to these resources through a very user friendly tool makes	"We had very positive feedback from the residents who particularly enjoy the movie clips and music videos" – Site G

	this therapy much quicker to deliver and more enjoyable for the residents" – Site G	
	Our staff found REMPAD to be a very useful tool to access specific information that is most relevant to this area and to our residents– Site H Very easy for non-technical users – Site H	Residents enjoyed the sessions and in particular they were interested in the topics of reminiscence as they were very relevant – Site H

The idea of having a technology system to recommend multi-media content for participants based on evaluation of their interests and preferences is a **new concept**.

"I would never have thought of it being this way but it seems excellent… I think it is great; it looks great, especially if families got on board. It would be excellent"

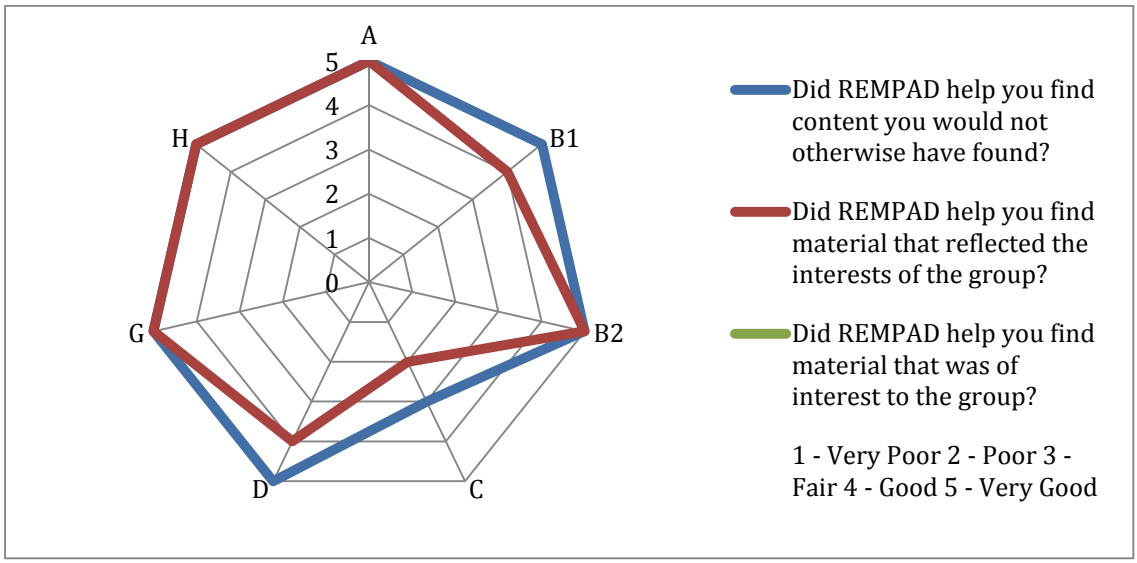
A digital reminiscence therapy system was perceived as something that would be most beneficial for use by family members with a person with dementia.

Emerging issue question 13 – (EIQ13) Does REMPAD deliver suitable content to support engagement?

"If there was something like this in a nursing home that was available for families to use, because sometimes you are like well what do we do now? You have come in to visit and sometimes it can all be a bit chaotic in there" (AC SSI)

To explore whether or not REMPAD provide users with access to content that supports engagement with group participants, the facilitators were asked questions to rate the usefulness of the REMPAD recommendations for; providing access content, relevance of content for participant interests, appropriateness of content for participants. Generally the REMPAD recommendations were found to provide facilitators with access to content that they would not have otherwise found. All but one facilitator found the recommendations to be reflective of the interests of the residents. All facilitators reported that REMPAD material was of interest to the group as a whole.

Graph 5. Radar graph of facilitator feedback on REMPAD content suitability for group participants



An emerging perceived challenge of pairing technology with reminiscence was that technology can take from the reminiscence experience by placing demands on the user to give time and attention to the participants.

"I could spend my time better, coaching people, or facilitating people or encouraging them to participate" (EF)

Therefore, it was anticipated that an automated system would deliver the potential benefits of freeing up time and reducing demands to enable the user to be more attentive and do more for the participant. This was confirmed in letters of feedback received from care home managers at the end of the field study.

"Obtaining appropriate triggers, pictures and other stimuli proved time consuming and repetitive, the easy access to these resources through a very user friendly tool makes this therapy much quicker to deliver and more enjoyable for the residents" – Site G

Facilitators identified requirements from a technology enabled reminiscence therapy system as; time saving, reduced preparation, ease of set up, use and reporting.

Was very easy. No additional time to set up/ run. Other 2 groups ran as normal. Did not interrupt existing groups. Showed to colleagues – think it's brilliant! – Site A

"Always looking for something that will help us to plan groups or have the materials ready for us so we don't have to carry them. I'm always carrying bags of stuff with me" (SSI, EF)

"Very easy for non-technical users" – Site H

There was strong agreement amongst activity coordinators that the system was easy to use, easy to learn how to use and satisfying to use. It was easy to set up and edit users and groups and easy to find clips to use for RT.

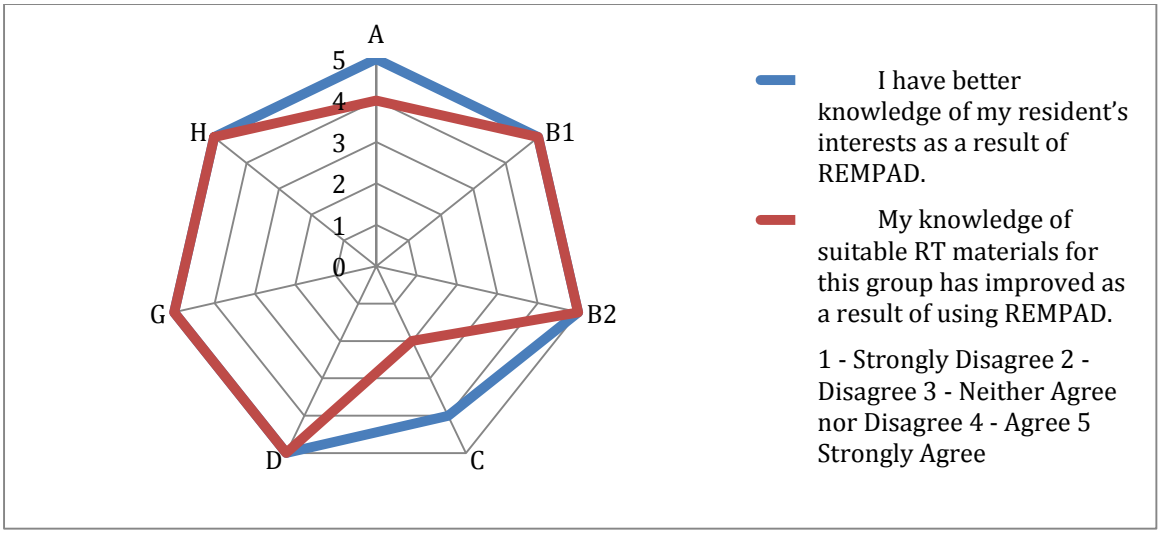
"…Structured framework and measure enjoyment and interest in the activity" - Site C

"Our staff found REMPAD to be a very useful tool to access specific information that is most relevant to this area and to our residents"– Site H

Reminiscence more meaningful and accessible - Site C

Facilitator perspectives on whether or not knowledge of their group members and knowledge of suitable reminiscence content and overall experience of reminiscence had improved as a result of using REMPAD was found to vary between facilitators. Overall facilitators either agreed or strongly agreed that they had better knowledge of their resident's interests as a result of engaging with technology-enabled reminiscence. Only one resident disagreed that their knowledge of suitable reminiscence materials for their group had improved as a result of REMPAD. Two facilitators neither agreed nor disagreed on whether or not they had better experience of reminiscence therapy using REMPAD. The remaining 5 either agreed or strongly agreed.

***Graph 6*. Radar graph of facilitator rating of knowledge following REMPAD**



As well as being beneficial for the user, potential benefits for the participants, such as stimulating socialization and engagement are also conveyed.

"Improved sociability in residents" - Site C

Residents engaging, they got a lot out of it. Some would recognize content they had seen before – Site B

Conversation continued after the session between members – Site A

This suggests that a perceived advantage of technology for the older participant is to engage people by tapping into what is relevant and familiar to them and stimulating conversation.

Residents enjoyed the sessions and in particular they were interested in the topics of reminiscence as they were very relevant – Site H

Enables residents to access memories they have re: clips they have seen. This in turn enables the resident to discuss these memories with the rest of the group and soon turns into a group discussion or a sharing of memories/stories" – Site D

In the same sense, that users worry that when videos are recommended for a participant, this may lead to confusion for the participants as they may not understand why this representation of personalized recommendations being made for them.

"I think the participants in the group may not understand this kind of representation very well. I suppose what your goal is, is that the group leader will know what it is".

It was suggested that the group leader still be involved in moderating the content selections for the group. This raised an interesting question about the ability of technology to balance the needs of the group leader against the needs of the participants.

The REMPAD feedback feature was explained to potential users and users express their needs and expectations from a feedback tool.

"We are always looking for something to help us track how well people are participating in the group and how satisfied they are with it. I suppose while this is helping the system, it is very helpful from the group leader perspective" (EF)

Users viewed reminiscence as a therapy; they desire to 'track' outcomes that have positive trends in "satisfaction" and group performance this may be explained by looking more closely at what particular users gave this feedback. Speech therapist users tended to be more driven towards outcomes measuring cognitive-linguistic impact and patient wellbeing and satisfaction. Activity coordinator users tended to be more orientated towards outcomes of participation (attendance) and record keeping of participant interests and preferences. In reality, the feedback feature of the system was to refine the recommendations for the participants, based on machine learning from explicit feedback from users so that the video recommendations would be more relevant to group participant interests.

During direct field study observations of the technology-assisted reminiscence in practice, participants with dementia were observed to make sense of the material the system presented and showed an understanding of how it worked. Some spontaneously commented several times that they enjoyed attending REMPAD sessions.

Among the comments were: "It takes you back and refreshes your memory." "This covers everything." "It brings it all back to you…well worth it" "It's good to remember things." And "That's entertainment."

One woman said she'd like to use REMPAD again, adding that she thoroughly enjoyed the system and found it very interesting and "something new", "I go to bed every night and think of all the things I did and didn't do".

Technology-assisted reminiscence supported social agency in the person with dementia by offering them more choices and control of reminiscence subjects and materials. It was reported by facilitators that REMPAD seemed to increase participant's social interaction and communication within the group. Facilitators reported that the REMPAD sessions were more conversational, with participants contributing and sharing control of conversational direction. For some group participants the system stimulated people with dementia to recall memories no one had heard before.

Summary

Pre-design interviews with reminiscence facilitators revealed a number of expectations ranging from increased awareness of the care home resident to increased person-centeredness in facilitator's engagement with the older person to reduced workload on facilitators to achieve this goal of person-centeredness.

Emerging Issue Question 10. Did REMPAD remove barriers to reminiscence?

It was facilitator's hope that mixing technology with reminiscence would improve the accessibility of reminiscence by reducing time demands on facilitators to search for and retrieve suitable, meaningful, person-centred content for reminiscence participants. The usability, learnability and efficiency in accessing reminiscence content through the technology-assisted reminiscence system. Existing barriers to technology in the care home were both reported and observed to include the following;

- Access to PC or Laptop
- Availability of software
- Access to internet
- Limited range of WIFI
- Low self-rated technical skill level of users

For those that could use the technology REMPAD, it was rated highly as was the user satisfaction with the system. However, intermittent problems did arise. For example, slow Internet connection in three of the locations meant that in some situations the videos took time to load and the therapy participants would lose interest. During the field study phase, the engagement with the technology fell 50% short of initial agreed targets of two sessions per week for a period of 7 weeks. This was due to a combination of reasons such as Internet connectivity, laptop/computer access, illness amongst residents and restrictions on group activities as a result of infection control practices; facilitator time challenges from competing care home activity interests for Christmas preparations. Overall the technical aspects of using the system were rated well by facilitators and the benefits of mixing technology and reminiscence were reported to be present in saving facilitator preparation time and making reminiscence materials more accessible in the care home.

Technology-assisted reminiscence supported social agency in the person with dementia by offering them more choices and control of reminiscence subjects and materials. It was reported by facilitators that REMPAD did seem to increase participant's social interaction and communication within the group. Facilitators reported that the REMPAD sessions were more conversational, with participants contributing and sharing control of conversational direction.

Technology-assisted reminiscence helped in removing the facilitator's role as gatekeeper for setting the topic and agenda reminiscence and opened up the process for group participants to control. However, there still emerged a strong need amongst activity coordinators to know what the content was so that the facilitator could be prepared and have knowledge to communicate with the participants.

Emerging Issue Question 11: Was REMPAD useful in stimulating memories? Technology-assisted reminiscence was perceived as a resource that would help to engage the person with dementia in a more person-centred reminiscence process. For one group participant the system stimulated people with dementia to recall memories no one had heard before. This was not reported on from other groups.

Emerging Issue Question 13: Did REMPAD deliver suitable content to support social interaction? Facilitator and resident enjoyment was derived from viewing the reminiscence materials. Reminiscence was reported to be more meaningful for people involved with increased engagement of residents both during and after the sessions reported by facilitators. As a result, participants can benefit from ICT supported reminiscence therapy by having increased opportunities for interactions and greater ability to take ownership of the conversation.

Despite these positives however, the enduring question of what technology does to the reminiscence experience remains, one perspective on this from considering the findings can be that technology imposes a bounded structure on reminiscence exchange between people and this in turn introduces additional variables into the process of engaging in reminiscence that can serve as a barrier to successful reminiscence. These barriers were observed to be in the form of, system user errors, reliability of Internet connectivity, the variability of content recommendations and the variability of participant engagement with audio-visual content.

5 Discussion

This chapter provides an in-depth discussion of the findings and main themes deriving from this case study. The findings are examined in the context of the literature and areas of divergence and convergence are highlighted in the development of assertions about the use of technology for reminiscence in the care home.

Concepts of person-centred-care and reminiscence therapy are discussed to reframe our thinking about reminiscence in the context of person-centeredness. The reminiscence facilitator's operational definitions of reminiscence as outlined in figure 4 (section 4.2), serve to explain the meaning of reminiscence as defined by the activity coordinators involved in this study. Perspectives on technology and technology usage in care home activities and people's attitudes towards is explored in relation to how this impacts on the use of technology. Organisational theories of care home management and theories around leadership will be discussed in relation to their influence on activities and reminiscence for older persons in the care home. These theories as they relate to the study findings will be summarized prior to concluding the study in the final chapter.

5.1 Visibility of reminiscence in the care home

The perspective of the reminiscence practitioners towards reminiscence is summarised in figure 4., section 4.2. This outlines their understanding and operational definition of reminiscence and its role in the care of the older person and is critical to the discussion of the visibility of reminiscence in the care home.

The creation of the life story as an output from the reminiscence process, was seen as something that would help the person through the life changes involved in living in the care home and also provide a legacy of the person's life. This process allowed for the exploration of the embodied self, and the production of the life story feature piece was perceived as having potential to extend those explorations for the older person amongst their families and friends and within the care home. However, the process around selecting individuals that have something to tell, or have lived a life worthy of telling a story about was equally seen as something that threatens the agency and personhood of the person. This motivation drew into question the understanding of the experience of personhood in dementia and the potential of life story work to enrich that experience or

threaten it if done in a selective manner. Kitwood & Bredin (1992) argue that "personhood is not, at first, a property of the individual; rather, it is provided or guaranteed by the presence of others' (Kitwood and Bredin, 1992). Such views have been the basis for recent attempts to engender changes in patient care. Care of older people living with dementia could be improved by focusing on the nexus of relationships in which their personhood is nurtured. In emphasising personhood, the immediate social circle of the person with dementia becomes potentially active participants curators in the maintenance of their sense of self. This study findings highlighted that there exists vulnerability for the people who can't participate in displaying their personhood by independently communicating it. This threatens the availability of reminiscence for this person, especially if the motivation for the activity coordinator is to display the outputs from the reminiscence to the care home management. Equally reminiscence is threatened for all if management request that output products from activities be made visible or hung up on the wall for outsiders coming in to see. The demand for physical output can be perceived as a threat to the true work of supporting personhood, as a result is clear to see how activities such as reminiscence can then become down-prioritised and potentially neglected.

The shift towards a humanistic social model of aging care that embraces person-centred care as its core philosophy is part of a culture change movement influencing residential aged-care practices in several countries, including US, UK and Ireland.. Although in theory person-centred approaches to long-term care should create the conditions for older people to participate in meaningful lives, and potentially improve their wellbeing, there is a paucity of studies designed to test this and such studies are difficult to design. The effects of person-centred care on staff in long-term care facilitates person-centred care has been found to positively impact on job satisfaction and work conditions, as well as improving staff capacity to meet the individual needs of residents with dignity and respect. (Bergman-Evans, 2004, Ashburner et al., 2004). Person-centred approaches improved the continuity of residents' care because they were more likely to be assigned to the same staff member and this led to increased social interaction between residents (Ashburner et al., 2004). This was reflected in the REMPAD study when after seven weeks of facilitating technology-enabled reminiscence, activity coordinators agreed strongly to having a better knowledge of their residents and their interests after using

REMPAD. Reminiscence facilitators agreed that REMPAD helped increase opportunities for resident interaction both within the group and with the activity co-ordinator.

Of interest to me in exploring the existing care home culture and potential for culture change around person-centred care enactment in the care home was the level of care home management involvement in activity planning and resource provision. Successful implementation of culture change models requires good leadership and stable management; strong teamwork, efficient communication systems; and an investment in staff training and education about culture change (Barba et al., 2002). . Findings from initial telephone surveys with care home managers revealed that they felt "much needs to be done for people with dementia" and that training for activity co-ordinators was largely undertaken in house amongst staff members. External training was accessed in the form of attendance at study days or activity training programmes such as Sonas. A small number of homes reported to having invested in specialised training for care home staff through specific culture training programmes from organisations such as Dementia Care Matters UK. Although educational interventions in residential care may be evaluated positively by participants (Beer et al., 2011b), there is evidence that the impact on residents may be restricted by limited staff participation (Beer et al., 2011a). The Eden Alternative, is an example of a person-centred approach to deinstitutionalising long-term residential aged care is based on ten principles, which provide a blueprint for person-centred, organisational culture change and reform (Thomas and Johansson, 2003). The final principle emphasises the importance of 'wise leadership' in realising effective, sustainable culture change.

My findings showed that care home organisational structures were mixed in their approach to care. Whilst person-centred care was the approach to care referenced by all care home managers and reminiscence facilitators there existed evidence of centralised structures of management where decisions were made at the top in relation to presence/absence of activities, type and variety of activities, procurement of activities and the cost structure around activities and whether these were charged as an extra to residents or as part of the overall care. Teamwork, communication and leadership were consistently recognised as key elements of organisational culture which potentially influence staff and resident outcomes in care facilities (Beer et al., 2009). Evidence supports these findings, showing that management behaviour (such as the extent of open

communication patterns and relationship-oriented leadership behaviour) is associated with resident outcomes (Anderson et al., 2003).

Leadership is of significant importance in realising effective, sustainable culture change. Resistance from senior leadership is the most frequently cited barrier to adopting culture change, followed by perceived cost and concerns about compliance with regulatory requirements (Miller, 2010). Evidence of these three themes was present in interviews conducted with different levels of stakeholders in the REMPAD project research. One activity co-ordinator reported that senior management like to see visible outcomes or tangible products from the activities. Furthermore, senior management often request that certain residents to participate in activities following observation that the resident's mood may be low. The perspective disclosed from the activity coordinator was that activities could operate as a means to cheer people up, "jolly them along"1. Systematic review of the evidence regarding leadership indicates that leadership styles focused on people and relationships are associated with more positive outcomes than leadership styles focused on tasks (Cummings et al., 2010)

More recently the need for person-centred care has also influenced technology developers both in their engagement of people with dementia and their carers in the design of technologies that remediate person-centred care practices (Webster, 2011). Reminiscence facilitators were engaged in the process of designing and developing the REMPAD too. General awareness of person centred care rhetoric was widespread in care home staff discourse but, attitudes of person-centred care did not always follow through to behaviours of engaging with the technology. Reminiscence is one way of putting the person back into personhood but, whilst employing technology made reminiscence easier to access, technology also created another barrier for reminiscence.

Costs, staff shortages, staff turnover and communication problems are cited as barriers to sustainable improvements in the care of people living in residential care facilities (Beer et al., 2009). In the interviews with reminiscence facilitators, it was not uncommon for the interviewees to express that "the powers that be" control the budgets and all requests for new equipment, resources or training much to senior management for approval.

1 Section 4.2, page 92 & page 104

Amongst activity coordinators there was no clear understanding of this process and how decisions were made or how long it took for decisions to be made as it varied from location to location but, in all instances the budgets were controlled by senior management2. Cost was observed to be a factor for concern for all parties including the home manager, the activity co-ordinator and the resident. Budgets for activities were largely undisclosed but, preference for providing large group-based activities (Sonas, music, exercise, bingo, movies, pet farm) was disclosed. These large group activities were reported to be preferable as they had the capacity to involve more residents. However, it was recognised by some activity co-ordinators that all residents did not attend group-based activities. Some residents did not like engaging in any group activities, some preferred to be in their room and others, particularly men were difficult to engage in the popular, stereotypical care home activities. Residents were also observed to be concerned about cost. In one particular care home the residents held a sale of knitting works that raised €500 euros. When a meeting was held to discuss how to spend the money the residents expressed a desire to spend in on items what were of core importance to them like masses for the deceased and donations to charity. They did not wish to spend it on themselves or on physical items to change or enhance their environment. The care home has an ethical position to respect the resident's wishes despite the activity coordinator encouraging them to consider its benefit for activity resources. Promoting resident choice has been an important component of many cultural change interventions in residential care settings (Rahman and Schnelle, 2008). However, cost concerns for managers highlighted variability in the organisational culture of the individual care homes. In one interview with a care home manager it was revealed that activities in that home were charged as an extra monthly fee for families to cover. It was a flat fee regardless of whether or not the person attended activities. When probed further it was revealed that services such as the laundry and trips to the hairdressers were also included in this monthly fee. This was a significant barrier to changing the culture of providing activities for older persons in this home as the present situation only served to potentially create avoidance of activities on behalf of the resident who may not wish to have additional charges placed on their family.

The qualitative data revealed substantial overlap between issues cited as important by

2 Section 4.2, table 12, page 86

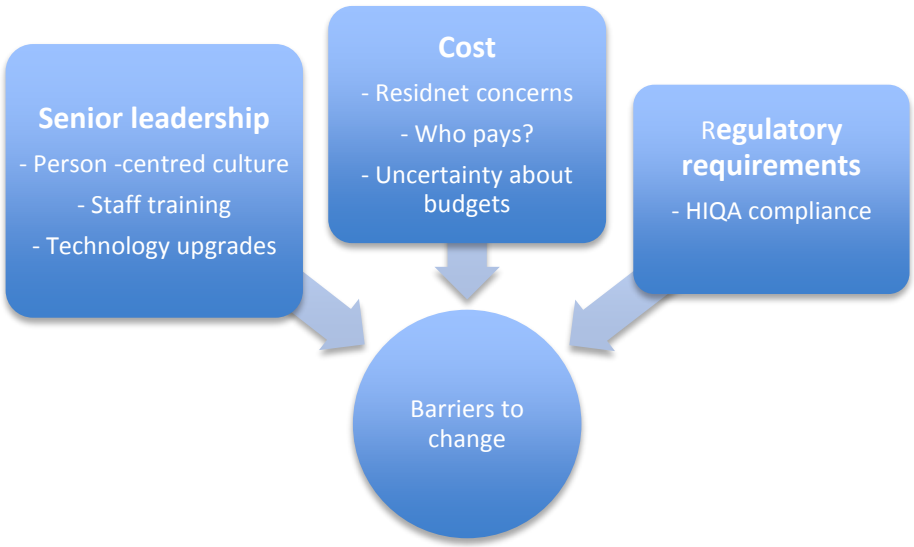
both reminiscence facilitators and their managers such as leadership, cost and regulatory compliance. Facilitators and managers questioned whether or not HIQA had approved or endorsed of REMPAD or was aware of REMPAD. Care homes were keen to ensure that they were compliant with the standards of care for older persons in residential care and particularly concerned about doing more for residents with dementia. The guidance on dementia care for designated centres for older people (HIQA, 2015) document offers direction on what effective initial and on-going staff training should cover. This includes features such as, the provision of person-centred care, and understanding symptoms of dementia disease progression, memory loss and behavioural/psychological signs and symptoms. Strategies for communication to address sensory/cognitive impairment, a variety of techniques for understanding and approaching behavioural/psychological signs and symptoms, including alternatives to restraints are also listed as is understand the role of the family, information on how to address specific aspects of care (e.g. pain, food and fluid, social engagement).

It became apparent that leadership in the care home is important and can impact on concrete outcomes such as staff satisfaction. . Existing organisational culture appeared to be expressed in care delivery. Similarly, observation within facilities also suggested that organisational culture could impact on teamwork, communication and resident wellbeing. Ultimately the success of an organisation depends on followers who view themselves as equals to the leaders and who work for the common good. Followers are supportive of the leader but also challenge the leader. They adhere to lines of communication and authority. This is in contrast to interview findings with activity co-ordinators who reported that decisions on services and resources were made at a management level and at times decisions on what residents to engage with also came from management along with pressure for output from work to be visible and tangible in the home. At a management level, interviews revealed that new ideas and resources were needed, specifically for residents living with dementia. Interviews with care home managers revealed a strategic planning vision for homes to be more technology-enabled. However, no fixed timeline for achieving this goal had been set. For the most part, organisational planning of care home activities and engagements for residents was observed to be short-term and concerned with daily activities. One example being, Christmas season planning, which was found to supersede all other short range activity

programmes during the run up to the holiday, happenings like this pose as a threat to reminiscence practice and the reliability of it and place reminiscence at risk of being undermined.

In reminiscence people re-live and re-tell previous experiences, remember old associates, revisit half-remembered places and rediscover and celebrate a previous sense of self. But looking back can also be associated with a sense of what has been lost and cannot be recovered and can reframe the now as something less than what it might have been. Bereavement is a conversation theme that reminiscence facilitators report to have difficulty knowing how to react when residents reminisced as though they were in past sad situations. Staff recognised that reminiscence improved resident's wellbeing, as found by Brooker and Duce (2000), but staff did not reveal further how or why this was. This was evident in the responses from some reminiscence facilitators who felt that reminiscence would evoke potentially sad memories for the residents and that they didn't want to be "touching into anything sad" and as a result activities that would "jolly them along" were selected. This attitude puts the presence of person-centred care at risk and threatens the opportunities for recognition of personhood and the right to be sad in the care home. It is through reminiscence experiences like this, the reminiscence facilitator and residents become able to build layers onto each of these aspects of their personhood that have clear connections to their shared futures.

Figure 5. Summary of barriers to adopting technology-enabled reminiscence



Assertions derived from investigating the visibility of reminiscence in the care home

- Attention must be paid to giving the person with dementia a voice.
- Knowing the person's story and providing opportunity for meaningful interaction with the person with dementia is central to both the process and outcomes of reminiscence.
- There is a need to strengthen links between 'knowing the person' and planning and implementing person-centred care, especially in dementia care.
- Awareness of person-centred care rhetoric is widespread and staff are motivated and committed to making changes but at times show a limited understanding of personhood.
- To successfully implement technology-assisted reminiscence facilitators must address wider issues of dementia and how this affects the person, person centeredness, and unmet needs in the person in order to determine the suitability of using technology-enabled reminiscence with a person with dementia.
- Organizational barriers of senior leadership, cost and regulatory requirements threaten reminiscence in the care home.

Thematic conclusion

The exploratory nature of the research afforded me the opportunity to obtain ideas and insight on attitudes and responses to scheduled group-based technology enabled reminiscence from care home reminiscence facilitators during week-to-week user observations. The cornerstone research study into reminiscence therapy for people with a diagnosis of dementia, from which to draw guidance and direction, remains the systematic review into the benefits of reminiscence therapy (Woods et al., 2005b) in which it was concluded that improvements in cognition was evident in comparison with both no treatment and social contact control conditions. Caregiver strain showed a significant decrease for caregivers participating in groups with their relative with dementia, and staff knowledge of group members' backgrounds improved significantly. No harmful effects were identified on the outcome measures reported.

In summary, it appears that reminiscence interventions benefit residents and staff. However, achieving person-centred care is a complex intervention, which presents

several challenges for its evaluation and transferability in activities. The literature review identified a gap in existing research in that there was ample evidence supporting the benefits of group reminiscence therapy however, in order to be able to compare the benefits of different approaches to person centred care as enacted through reminiscence there is a need for further exploration of the features of reminiscence that support personhood and the use of a uniform language to describe the reminiscence interaction that underscores these interventions. As whilst awareness of person-centred care rhetoric is widespread in this study's findings and staff are motivated and committed to making changes, a limited understanding of personhood was observed at times.

5.2 How do care homes respond to technology?

The slow advancement of technology application in activity care practice was acknowledged by a study commissioned by the Social Care Institute for Excellence (Hicks and Miller, 2012) where technology based activities are thought to be a major revolution rather than a natural evolution with our time. This was evident in care home telephone surveys in which only 23% of homes surveyed used technology in activities and 80% of homes reported to have access to a laptop or PC if needed for activities, however, whilst 94% of homes had internet access and 77% had WIFI access, this was largely centralised to the administrative zones of the care home and did not extend out into the resident social spaces or bedrooms. By reflecting on the theory in context of practice observations– i.e. synthesising the literature review findings with the 'real world' – I was able to gain a fuller understanding of the care home organisational issues surrounding the implementation of technology and internet based activities. The types of activities, which are currently used by carers using ICT, are centred on leisure activities such as watching documentaries, singing, listening to music and dancing. The ways in which they are perceived to improve the quality of life for the person with dementia and their carer is through improved opportunities for communication and the provision of entertainment and stimulation. Many of these activities are more easily carried out or supported using the internet-enabled resources such as RTE Player, Netflix, Spotify, iTunes, YouTube.

My initial literature review highlighted the need to provide care staff with guidance and training on how to implement technology-enabled reminiscence into practice. This

emerged as a strong need in the findings from the initial pre-design interviews with health care professionals when self-reported levels of confidence with technology and usage of technology was rated as average to low. To gain credibility amongst the healthcare community it was recommended that guidance on the usage of technology be based on research exploring not only influences and barriers to implementation but influences and opportunities for successful implementation.

Much of the literature around ICT and dementia focuses on the benefits of Assistive Technology and the way in which technological devices have the potential to act as a 'cognitive scaffolding' to support individuals in undertaking tasks and decisions, supporting or taking over functions which have been affected by dementia and ageing (Newall et al. 2002). Although this literature continues to grow (Department of Health 2011), these types of Assistive Technologies fall outside the scope of my research. Instead, my research focused on the types of activities that are currently used by carers and carers using ICT, the ways in which they were perceived by the carer to improve the quality of life for the person with dementia through improved opportunities for communication and the provision of entertainment and stimulation. There is growing evidence that leisure activities such as singing, listening to music, dancing and gardening (Gotell et al. 2002) can be beneficial in ameliorating some of the effects of dementia (Karp et al. 2006; Fratiglioni et al 2004) and many of these activities are more easily carried out or supported using the technologies now available. This was evident amongst the care homes surveyed and the initial pre-design interviews undertaken whereby, the most frequent themes of activities observed on schedules were fitness, reading, religion and music. Despite a growing range of specialist software and technology aimed at the older person's care market, no care homes reported to having obtained any commercially available hardware or software for activities.

Staff confidence in using technology plays an important in the reception and uptake of technology by people with dementia. If the carer is not comfortable using the technology and unwilling to embrace it, then it is unlikely that the person with dementia will be, either. To consider preconceptions of care home activity coordinators and health care workers have towards technology the findings revealed that self-rated technical skills ranged from novice to average and above average in one case. Computer usage was rated comparatively higher than tablet/iPad usage with 43% surveyed having had little or no

exposure to using a tablet/iPad. With low familiarity of tablet/iPad usage jeopardy for the project was introduced with the risk that users may not feel confident. However, interestingly post-field study when activity coordinators were questioned on their perceived user competency with the iPad, those who had reported low user frequency reported higher levels of tablet user competency. A similar report was yielded when activity coordinators were questioned on their usage of the video-sharing website YouTube. The concluding theory here might be that whilst iPads and video-based websites are less frequently used they are easy to use when used.

Overall reported Internet usage was comparatively lower than general PC usage for activity coordinators. It was not surprising therefore that, the care home workplace was revealed to be the environment that presented the most challenging when attempting to use the Internet. Primarily this was due to Internet access restrictions, website access restrictions, Internet connectivity issues and slow Internet speed. These challenges extended to attempts to use technology for reminiscence and as a result engaging in technology-enabled reminiscence became tough to manage due to the uncertainty of Internet access and the difficulty of managing technology challenges while maintaining people's engagement at the same time. This put additional pressure on the activity coordinator and put a strain on their time management. In the UK, despite recent advancements in information provision, more than eight out of ten UK care homes offer residents no access to the internet according to a recent survey by carehome.co.uk (McArdle, 2013). Fewer homes again, provide Wi-Fi, which is a necessary essential to using a tablet or iPad to full potential. For those that do have access to the internet, feedback from the Social Care Institute for Excellence UK, revealed that in some cases managers and staff had struggled to help service users with dementia make full use of the technology available to them, again this was discovered to be primarily due to the lack of guidance available to support health and social care staff obtaining information about and integrating technology into everyday dementia care activities (Miller, 2011, Hicks and Miller, 2012), despite the publication of resource guides with reference lists of technology applications suitable for social care providers who work with people with dementia from early diagnosis to more advanced conditions (SCIE, 2012).

Overall the sentiment emerging in this study was that technology takes from the experience of reminiscence by placing additional demands on the facilitator to co-

ordinate and manages multiple tasks at the same time whilst ensuring a positive experience for the participants. For facilitators a large risk for them with integrating technology into reminiscence is that participants will lose interest in the activity when technology challenges arise and threaten their ability to provide the activity. Another risk revealed was that, the participant's visual and hearing deficits would place additional strain on the activity coordinator to compensate for this by accessing a larger visual screen to display the content or speakers to amplify the sound. The unpredictability of available content to match the interests of the participants was also revealed as a threat to using internet-based methodologies for facilitating reminiscence groups. As a result, this was observed to place additional demands on the activity coordinator to identify a creative solution when the resources were not available. This strain creates negativity in the process of delivering the activity and places it in jeopardy.

Significant gaps exist in our knowledge and access to information on how social care staff and volunteers are helping clients to interact with technology, including ways in which to first engage the interest of these clients, particularly older clients and technology hardware and software most appropriate to an individual's level of functioning and ability. A key stumbling block remains for care staff in that; many may have no prior experience with technology at all.

Despite this however, the idea of using an automated system that would make personalized content recommendations for reminiscence was positively embraced by activity coordinators who were approached to participate in the study.

Assertions derived from investigating how people respond to technology

- Few care homes used technology for activities
- Organisational service development barriers limit the application of technology for activities in the care home
- The majority of facilitators rate their technical skill level as average
- Despite low PC & tablet user frequency, high user competency was reported
- Paper-based resources are perceived as more reliable to use over internet-based

- Internet connectivity and access issues were resolved in some locations where access to internet-based content was considered necessary for activities and therapy.
- Uncertainty with technology access and reliability created pressure and negative experience for activity coordinators, which placed technology-enabled reminiscence activity in jeopardy.
- The characteristics of user familiarity with technology pose a need for clear and intuitive interfaces with easy-to-use interaction modalities.

Thematic Summary

An important contribution of this research work is the study and analysis of empirical data on what Irish care homes identify as barriers, both the physical barriers, organisational barriers and perceptual barriers to the implementation of technology for activities in the care home. The use of technology in the care home is surrounded by uncertainty and risk of failure. Uncertainty was found to exist with procuring, accessing and implementing technology for therapy and activities. This was largely due to the shortfall in care home infrastructure and available support to address this. This created a negative experience around the use of technology for activity coordinators as its reliability was threatened. With decision-making on access to Internet and associated technology resources coming from the top of the organisational structure, the availability of technology in long-stay care was viewed by activity coordinators as lacking consistency and reliability and hence was open to jeopardy as it risked activity failure and low participant satisfaction.

Therefore, if some of the uncertainties with content procurement, quality, access and personalised planning for group participants can be automatically managed will this reduce the jeopardy and risk associated with applying technology to activities? To show care home professionals respond to the integration of a purpose-built technology enabled reminiscence activity system and the interpretations drawn from such an experience are of critical importance to understanding .the positioning of technology for activities in care homes and will be discussed in the next section.

5.3 Experience of combining technology and reminiscence

The focus of this section is primarily on lessons that can be learned from current practice in using purpose-built technology of REMPAD to help guide activity coordinators and improve access to reminiscence to enhance person-centred care of people with dementia.

By introducing technology-assisted reminiscence system into care homes with guidelines for its usage we intended to open up a broader canvas of human experience and self, to focus not only on remembering the past but also on (celebrating) the present and imagined futures. Activity coordinators were encouraged to support the resident's sense of who they are, through the co-creation of connections between the past, present and future experiences. This was evident in the experience of one resident who wanted to make sure that the reminiscence facilitator know that "not everything has always been nice" and that even though he was not distressed by unpleasant past memories from school he wanted people to know that he was "just bringing these up to be acknowledged" so that people could understand him.

If person-centred care is the main driving influence behind dementia care and if reminiscence is one way of enacting person-centred care then, at its best, technology-enabled reminiscence needs to enable a people to get to know people. Indeed this was very apparent in the findings, in section 4.2, where the facilitator's operational definitions of reminiscence are revealed to be rooted in themes of narrative storytelling, conversation starting, connection and bonding, entertainment and stimulation.

Preserving the social component of group activity when using a computerised reminiscence application was another key requirement in the initial design of the REMPAD application. Reminiscing serves social purposes including intimacy maintenance and developing relationships (Webster & McCall, 1999) The reminiscence facilitators using REMPAD reported that in particular, therapy sessions enjoy a social component as participants can share experiences and discussion.

As deduced from the interviews with the reminiscence practitioners, the requirements of a system to support group reminisce were that it should be efficient, accurate, personalized and engaging in the content it recommends and provide a high degree of utility to the facilitator, ultimately leading to successful group reminiscence outcome.

Typically, a group approach is implemented with 'memory triggers' (photographs, recordings, artefacts, etc.) used to promote personal and shared memories (Kim et al., 2006). The main challenge for reminiscence facilitators is to include ways in which to first engage the interest of this client group; asking leading questions, using descriptive comments, making relevant connections with residents own life narrative. Most group reminiscence facilitators focus their reminiscence on a different theme each week (Namazi and Haymes, 1994, Nomura, 1996) or on using personal pictures and music (Thorgrimsen et al., 2002, Head et al., 1990). Interview feedback from users, revealed unanimous satisfaction with the experience of engaging in technology enabled reminiscence using collectively shared generic reminiscence triggers selected at random for each reminiscence session.

Identifying suitable content for a group of individuals is a much more difficult task for facilitators as the facilitators must identify content which optimally benefits the group, while minimising any negative effect. Controlling for this was a specification requirement integrated into the back-end algorithm, as was the requirement of reducing the time demands on facilitators to procure content by providing them with the operational tools to retrieve content. The efficacy of the recommendation algorithm performance was investigated in the field study conducted with 7 user groups and was reported in the findings through examination of system usage logs as well as explicit ratings from users, comparing a number of system configurations (Bermingham et al., 2013a). In general, a higher proportion of positive item ratings for individual users than groups was found, reflecting a greater difficulty in recommending for groups. End-session ratings were higher both for groups and users than individual item ratings.

However, there can also exist jeopardy in the application of REMAPD technology, as it is open to user interpretation on how to engage the participants with REMPAD either through active engagement or passive engagement. At its best technology enabled reminiscence enables people to get to know people. But, this is also a main benefit of reminiscence therapy in general so in the absence of any comparative study comparing traditional reminiscence methodology to technology-enabled reminiscence; technology-enabled reminiscence needs to be careful that it is not just adopting the main benefits of general reminiscence therapy

REMPAD appeared to satisfy many of the aims of the already existing reminiscence systems including: assisting reminiscence (Alm and O'Mara, 2001); facilitating the caregiver to conduct reminiscence therapy sessions (Sarne-Fleischmann and Tractinsky, 2008); acting as a support for triggering reminiscence and maintaining episodic memories (Hallberg et al., 2009); helping to engage in meaningful conversation (Alm et al., 2003); prompting conversation (Yasuda et al., 2006); The findings from the field study yielded some rich insights on benefits and challenges of integrating technology with reminiscence. User-centred design techniques were applied to address the challenges of current RT practices and explore potential solutions to these challenges. It is true to say that the people that used REMPAD found it enjoyable, user friendly and useful for finding content in a time efficient manner. This was satisfying for the care home organisation, as it appeared to save staff time and money in the procurement of reminiscence content and reminiscence session set-up time. Saving time can be seen as a positive thing for the care home organisation and may lead to reminiscence being more widely used. As highlighted by the work of Shik et al. (2009) if reminiscence systems are used in a group setting then projection systems and/or large screens and speakers or amplifiers will be required and group leaders will need to be trained (Shik et al., 2009), this may lead to an initial cost outlay for the care home.

Not only did the benefits of REMPAD include the enjoyment derived by facilitators using the system but enjoyment was also expressed from people with dementia viewing the various forms of multimedia reminiscence materials and having increased opportunities to interact and greater ability to take ownership of the conversation. This would need further studied as the work of Mulvenna et al. (2011) found that group participants spent shorter times viewing photographs on tablet devices than those mounted on card but overall participants enjoyed using the reminiscence device. Also, they found no difference in how the participants viewed the three types of images (personal, generic and shared experience), which is encouraging for the REMPAD system as it only uses generic materials

Whilst technology-assisted reminiscence appears to bring the addition of structured conversation to the dynamic of reminiscence with opportunities for social engagement and ownership of conversational topics this is not necessarily always the case. In some ways it can be perceived as formalising the process of reminiscence engagement through

structured chat. This is not necessarily a negative thing, however this legitimising of reminiscence into group or individual sessions that are dependent on the access of a system, places a formal structure on the reminiscence process and makes reminiscence more of a thing. Something that is tangible and dependent on a technology system to support person-centred interaction. Thus, REMPAD was perceived, as creating jeopardy in reminiscence process as if the resource is not available then the reminiscence may not proceed. This was observed to happen in the field study phase with care homes where issues such as lack of technical expertise for setup or operation, or issues with internet connectivity or issues with resource access meant that of the 10 initial homes approached only 60% could proceed with accessing the REMPAD system due to their inability to meet the minimal technical specification requirements necessary to use REMPAD. 50% of the recommended 14 sessions were completed. A rationale for this might be that once formalised, technology-enabled reminiscence becomes more of a thing so that in order to exist successfully it is dependent on variables such as access to the Internet, access to a room, access to a display screen, access to speakers for amplification. This introduces jeopardy, whereby when time is tight the technology-enabled reminiscence activity is at risk of being cut from the schedule. This not only threatens the existence of reminiscence but it endangers person-centred care by associated de-valuing of the initial motivations to engage in reminiscence. As highlighted by the work of Shik et al. (2009) if reminiscence systems are used in a group setting then group leaders will need to be trained to not only facilitate discussion and allow space for participants to share stories and enjoy the narratives but also in managing the technical set up (Shik et al., 2009).

It is common for facilitators to plan the reminiscence stimulus in advance. Apart from the extra time involved in this, such a rigid approach limits flexibility in terms of adapting when a pre-planned stimulus has proven ineffective during a session. Based on the assumption that reminiscence sessions need to be dynamic and reactive to people's interests or circumstances of how it is unfolding REMPAD attempted to take this control from the reminiscence facilitators and give it back to the group. To achieve this REMPAD made random selections based on group member's interests and the clips that they clip watched and rated satisfaction with. The idea was to not only save time for reminiscence facilitators but, to put personhood back into the activity by providing a tool for

reminiscence facilitators that enabled recommendations to be made that related to participant's interests. In any reminiscence group there is the risk of the available memory triggers determining the direction of the discussion, and with more powerful multi-media triggers this becomes an even greater danger. This was a strong concern for the reminiscence facilitators and exacerbated even further with the automated content recommendations that were made by REMPAD. Despite the considerable interest in reminiscence group therapy, controlled studies to determine its specific benefits as compared to generic social interactions with peers (group conversations about everyday subjects) are still lacking (Gaggioli et al., 2014b). The assessment of the specific benefits of group reminiscence as a 'standard' socializing activity in nursing homes is still an under-investigated issue (Gaggioli et al., 2014a). Three main reminiscence modalities are identified in literature: simple reminiscence, life review, and life-review therapy, however, the definition of these modalities is often merged (Webster et al., 2010). This merging was observed in some activity coordinators responses for reasons why they did not regularly engage in reminiscence. As a result, REMPAD reminiscence facilitators were provided with training, so as to provide them with confidence in following the direction of the participants rather than being driven by a pre-set programme of images or music. Despite training on how to manage emotional upset from reminiscence, during the field study, two juxtaposed perspectives on reminiscence content and its moderation stood out for me. When negative associations were made with a reminiscence clip, one facilitator's practice was to remove the clip from the recommendations list. For another activity coordinator, the practice was to acknowledge the clip and its potentially negative connotations for the residents but, to let them decide if they wanted to continue to watch and discuss it thus, using the reminiscence opportunity to validate the feelings and emotions of the participants through a person-centred approach.

Assertions derived from investigating what happens when technology and reminiscence are mixed together

- Technology enabled reminiscence needs to enable people to get to know people
- Technology enabled reminiscence needs to preserve the social component of reminiscence activity

- Technology enabled reminiscence needs to be efficient, accurate, personalized and engaging in the content it recommends and provide a high degree of utility to the facilitator, ultimately leading to successful group reminiscence outcome
- Technology for reminiscence formalizes the reminiscence process and places a structure on the facilitator–resident engagement through reminiscence
- REMPAD can be perceived, as creating jeopardy in reminiscence process as if the resource is not available then the reminiscence may not proceed and having to use a fixed piece of technology has the potential to become another excuse as to why reminiscence cannot be undertaken.
- Technology-assisted reminiscence should be used over a period of time to allow participants to adjust to the technology and increase the opportunity to experience therapeutic benefits from it.

Thematic conclusion

The list of assertions provided above, while extensive, draws out the main issues arising from the findings and discussion of what happens when technology and reminiscence are mixed together. The presentation of the findings and the subsequent discussion provides, at the very least, a social constructivist view of issues in reminiscence and technology-enabled reminiscence as they relate to practice and the experience of facilitators using REMPAD. Some 'old' issues are revisited and some new concepts, at least in terms of technology-enabled reminiscence practice, are renewed in a comprehensive depiction of multi-faceted realities in long-term care.

In maintaining the identity of the person with dementia it is clear that personalised materials for reminiscence are needed, and there needs to be a major resource commitment in terms of developing the biography with the person with dementia, with input from the family as needed and with support from the care home organisation to enable this. Accepting that this process is more challenging with people with severe impairments there will be merits in encouraging people with dementia to develop their multimedia biographies early in their condition with technologies such as REMPAD. The resulting biography may be used for private reminiscence or socially, with family members or care workers, and may have particular value if the person moves to a new care home environment or if carers change.

Encouraging communication with other people with dementia and with care staff can be achieved with technology-assisted reminiscence and there is not the same requirement for materials to be personalised, although they do need to reflect participants' preferences and interests. For use in groups, projections systems or large screens will be required. Training for group leaders will be needed to facilitate discussion and allow space for participants to share stories and enjoy narrative reminiscence. In any reminiscence group there is the risk of the available memory triggers determining the direction of the discussion, and with more powerful multi-media triggers this becomes an even greater danger. As in the case with REMPAD, those facilitating such work will need skills in following the direction of the participants rather than being driven by a set programme of images or music. REMPAD as a system is highly interactive, although it does not necessarily require the person with dementia to navigate through it. Whilst REMPAD has the ability to suggest related materials, pictures and music linked or associated with initial choices made by the users there is a danger here that the person with dementia will become a passive viewer, rather than an engaged participant. The lack of incorporation of taste, smell, touch and action, valuable memory triggers in conventional reminiscence groups may add to the risk of passivity. Further research will need to address whether ICT multimedia systems such a REMPAD can adequately replace the multi-sensory memory triggers used in best practice reminiscence work. The ideal scenario is perhaps if these systems make it easier for carers to converse and develop and maintain relationships with the person with dementia, rather than simply keeping the person entertained.

Summary of the Discussion

The research findings demonstrate that social interaction and communication in reminiscence is dynamic, and shaped by inner processes of their available memories and outer processes of social interactions. Thus, exploring technology-assisted reminiscence through a contextual understanding highlighted how the benefits of technology depend largely on individual care home and activity co-ordinator user circumstances. Failing to

account for the contexts of the organisational structure and culture in care homes can result in failed or misguided reminiscence technology use and uptake. Technology-assisted reminiscence can be perceived, as creating jeopardy in reminiscence process as if the resource is not available then the reminiscence may not proceed and having to use a fixed piece of technology has the potential to become another excuse as to why reminiscence cannot be undertaken.

6 Conclusion

This chapter will provide a summary of the major findings in this thesis and consider the implications of these findings by presenting practical recommendations on the use of technology for group reminiscence therapy with people with dementia. I will also review the theoretical influences and the limitations of the study. Firstly, however, I will present a summary of the entire thesis.

In the introductory chapter I set the context for dementia prevalence and its cost projections. I stated how diminishing communicative skills and identity are the most debilitating effects of dementia and outlined how early psychosocial interventions aiming to stimulate cognition and communication can support identity in dementia. I introduced the concept of reminiscence as a psychotherapeutic approach in person-centred dementia care. I set the scene on the emergence of health technologies to engage people with dementia. I provided an introduction to the REMPAD technology and briefly outlined the objective of the REMPAD tool to support psychosocial stimulation through technology-enabled group reminiscence therapy. With this in mind, I proposed to investigate the presence of reminiscence and technology in the care home and what happens when a technology tool to enable reminiscence is introduced. I refined my investigative questions to look at how technology impacts on the reminiscence process from the perspectives of the care home management and the activity coordinators. Furthermore, I planned to explore if this in turn would enable activity coordinators to learn more about resident's interests to the enhance person-centred care approach.

Chapter Two formed the literature review of this thesis. In chapter two, I explored the social impact of dementia on both the person and the formal caregiver in the care home environment. I introduced the concept of person-centred care approach to dementia care and developed the discussion further into emerging theory of relationship-centred care approaches. I discussed reminiscence as a method to engage and communicate with a person with dementia and the influence on the caregiver relationship. Current challenges in reminiscence practice were then explored followed by the emergence of technologies to support reminiscence therapy with people with dementia and associated challenges with integrating technology into both the dementia care and the care home settings.

In Chapter Three, I outlined how adopting the constructivist assumptions of a socially constructed reality and a subjective knowing enabled an exploration of technology through contextual understanding and the existence of reminiscence in the care home. I set about to explore, the attitudes and perceptions towards technology in the care home and the experience of the activity coordinators and care home management when technology to enable group reminiscence is introduced into the reminiscence process. Based on this, I also provided theoretical rationales for the use of a case study methodology to best answer the research questions. I also outlined the data collection and data analysis methods. I described the processes of seeking ethical approval for the study and considered additional ethical concerns relating to research with people with dementia.

Chapter Four was concerned with the findings of this thesis. In this chapter, I present the findings from this case study as they relate to each of my initial three research questions. Presenting the findings in this way also describes the chronological journey of the experience with developing, introducing and evaluating technology assisted reminiscence in the care home environment. Emerging issues are highlighted and the experience of technology in reminiscence and the person-centred care approach. In each research question findings the data from telephone survey, participant interviews and document reviews is triangulated and subjected to analysis with common themes emerging. These were organised around the main aim of the study: evaluating what happens when a technology tool to support group reminiscence is introduced to care home activity coordinators and its usefulness in maintaining the person-centred care approach for people with mild to moderate stage dementia. I highlighted how the findings are embedded in the experiences of the activity coordinators and the care home managers and the diverse realities of each. Furthermore, the findings presented make suggestions on how contextual factors can impact on the success of the technology to support reminiscence.

In Chapter Five, I return to the original research questions and address them in light of the findings reported in Chapter Four. I provide a general discussion on the implications of combining technology with reminiscence as explored in this case study.

In Chapter Six, I situated the findings within the broad contexts of person-centred care, technology and reminiscence therapy in dementia care. I then returned to the original research questions and answered them in light of the findings reported in Chapter Four. I also highlighted the challenges associated with the use of reminiscence technology in Irish care homes.

6.1 Review of theoretical Influences

The idea to design a new dementia intervention by combining psychosocial approach of reminiscence therapy with technology stemmed from the increased need for access to psychosocial interventions and new developments in healthcare organisational infrastructure to support the adoption and evolution of technology into healthcare activities and therapies. However, the particular focus on supporting social agency and communication in people with early to mid-stage dementia originated from the psychosocial perspective of dementia. The theoretical foundations guiding the intervention to support reminiscence through a sharing of meaningful interaction to promote personhood was expounded from the literature review. Yet it was the constructivist assumptions of a socially constructed reality and of subjective knowing that enabled an exploration of technology assisted reminiscence through contextual understandings and interactions with care home users and organisations taking part in the research. The technology's effectiveness was observed in light of these interactions and was embedded in the different realities of each.

One of the most fundamental influences of constructivism and the psychosocial perspective of dementia on this thesis is that it diverted the study away from a search for a faultless intervention, universal for all people with early to mid-stage dementia. Remaining true to psychosocial and constructivist principles, where human experience is conditional to social interactions and situated in this locality and a specific time frame, within the context of people with dementia. This understanding demonstrated that a "universal fit for all formula" simply does not exist, nor is a "fit for now" formula static over time. However, understanding the processes of REMPAD use and how each users reality may affect its delivery enabled the development of contextually-sensitive recommendations for future use of technology assisted reminiscence by facilitators in the care home environment working with people with dementia. These recommendations

aim to increase the awareness of the potential user to the type of contextual factors that may affect the delivery of technology assisted reminiscence therapy. However, they are not fixed criteria and will differ depending on each individual and their reality.

Similar to acknowledging that the delivery of technology-assisted reminiscence depends on the context of the care home environment and activity co-ordinator user and is not universal to all people with early to mid-stage dementia, the constructivism-influenced approach used also enabled an understanding of supporting a person with dementia's social interaction as contextual to the reminiscence process. The research findings demonstrate that social interaction and communication in reminiscence is dynamic, and shaped by inner processes of their available memories and outer processes of social interactions. Thus, exploring technology-assisted reminiscence through a contextual understanding highlighted how the benefits of technology depend largely on individual care home and activity co-ordinator user circumstances. Furthermore, it highlighted how failing to account for the contexts of the organisational structure and culture in care homes can result in failed or misguided reminiscence technology use and uptake.

6.2 Limitations of the study

There are a number of limitations involved in adopting a constructivism philosophy, including the classical argument that socially constructed truth does away with any authenticity about any findings because no absolute truth exists, only those versions of truth dependent on social interactions, and that any version of truth is as good as another. Thus, critics argue that this temporary and context-laden nature of findings derived from constructivist inquiry is of little value when placed in the context of generalising implications (Phillips 1995, Rickert 2009). However, the socially constructed nature of findings is seen as an advantage in this study as it is enabling me to see each users individual experience of reminiscence and technology in place of existing accounts of generalised perceptions about how reminiscence and technology in care homes is experienced. Similarly, in light of the therapy, user's individual experience of REMPAD was explored and captured by detailed observations and participant reflections, and was presented through in-depth reports. Furthermore, embracing a constructivist approach enabled me to recognise that regardless of users experience of reminiscence or technology, individuals will have diverse realities, and it is only by studying the way in

which these are constructed can we understand them. Exploring REMPAD technology use guided by constructivist philosophy enables one to reach a contextual understanding and to present findings specific to the participants of this study. Moreover, attempting to use REMPAD in a uniform manner with all activity co-ordinators working with people with dementia would simply be a failure and an over-simplification of the complexity of people living and coping with dementia in the long-term residential care setting. Nevertheless, detailed observations and interactions with activity co-ordinators providing activities for people with dementia in their context as part of the therapy enabled the suggestion of a set of recommendations based on contextual factors, which may have an effect on technology-assisted reminiscence benefiting people with dementia. These factors are transferrable to different realities as they are not definite; rather, they are possibilities that need to be taken into consideration when contemplating the use of REMPAD enabled reminiscence therapy. Thus the specific criticism of constructivism that its use in research enquiry results in a mere version of the truth with little value among other version seems insignificant, as the aim of the current research is to present just one understanding as based on the truth constructed during the research process.

The research was undertaken predominately to explore and understand REMPAD technology-assisted reminiscence use with the participants of this study, and to inform other users about this version of understanding. This understanding serves to inform other researchers and challenges the existing perceptions of experimental technology-assisted reminiscence with people with dementia. Furthermore, the developed recommendations may be adapted as needed to specific settings and contexts and may help to guide future applications of technology in reminiscence use with people with dementia. Rather than presenting the ultimate way of using REMPAD, I demonstrated that the suitability, delivery and experience of technology application in reminiscence might be different for each individual taking part subject to their contextual factors, reality, value and understanding of reminiscence benefits.

Another criticism of constructivism is that the findings are based on the subjective interpretations of the researcher (Rickert 2009, von Glasersfeld 2002). These subjective interpretations refer to the meanings given to the experiences or environment, not the environment itself. As opposed to other philosophical ways to make sense of the world, phenomena or problem, in constructivist inquiry, researchers cannot arrive at findings

independently of acknowledging their own role and moral judgment in the research processes. Critics argue that this leads to biased findings representative merely of the sole researcher's point of view, with little impact on implications for dementia interventions. However, as I engaged in reflective practice through supervisory meetings throughout the research process, I have been aware of my input into the therapy and findings and no attempt has been made to dismiss this. I am aware that, had a different researcher or different participants been part of the research process, the findings and conclusions of the research may have been different. The aim of this research was to embrace one approach to socially constructed reality and to use it to understand and fully explore technology use and its usefulness in reminiscence within the context to the care home. A constructivism approach is more informative to technology-enabled psychosocial interventions as it implies that interactions and personal experiences impact on the ability of the technology to sustain and provide successful reminiscence. Furthermore, it enabled me to observe how activity coordinators and care home organisations interpreted reminiscence, including their perceptions of technology-assisted reminiscence. The focus of the research was to present findings appreciative of participants' and the researchers co-constructed understandings and interpretations of this and the reality during the therapy sessions.

Given that this thesis is influenced by a constructivism paradigm, it would be flawed to respond to criticism of sample size, randomisation, validity and reliability, as such concerns originate from positivist approaches. The current research does not attempt to match this type of rigour. In its place, trustworthiness criteria have been developed to assess and criticise constructivist inquiries (Lincoln and Guba, 1985). I will now outline how the four elements of these trustworthiness criteria were considered throughout the research process, namely credibility, dependability, conformability and transferability.

Credibility is defined as the process of understanding the depth and scope of the issues under investigation and is generally achieved by triangulating different methods of data collection, including continued engagement in the field, participant observation and member checks (Lincoln and Guba, 1985). To ensure this research fits the criteria of credibility for the case study of the REMPAD technology, I visited the users in their care homes on different times and days for the duration of the therapy over a period of seven

weeks. In addition to administering the therapy, each visit involved participant observation, informal conversations, and before- and after- therapy interviews.

Dependability is the demonstration of the appropriateness of methodological decisions to constructivist principles. I provided a detailed account of combining a case study methodology with constructivist approaches in Chapter Three. Furthermore, Rodwell (1998) suggests that a methodological log should be maintained throughout the research.

The criterion for conformability, which refers to assuring the findings represent the researcher's interpretation of what took place and are not simply a product of the researcher's cognitive processes (Rodwell, 1998) is addressed above in response to the limitation that findings are based on a subjective interpretation by the researcher.

Transferability refers to the relevance and applicability of understandings gathered in one setting compared to another setting. This criterion is also addressed above in response to a criticism of constructivist enquiry leading to a version of the truth not applicable in other settings. Despite this research not creating an ultimate solution, recommendations were developed to help future reminiscence facilitators with technology-assisted reminiscence use. The usefulness and applicability of these guidelines depends on the specific environment of the reader or future reminiscence facilitator.

6.3 Summary of the major findings

Caring for someone with dementia is often frustrating and upsetting. When communication fails, caregivers are left to infer intention and meaning from behaviour alone. This can have negative consequences, such as believing incorrectly that someone is deliberately being difficult. The breakdown in communicative abilities in dementia has an uneven pattern. Thus, the apparent loss of some communicative abilities doesn't mean a person can no longer communicate at all. Working-memory impairments can make various aspects of conversation difficult and frustrating for the conversation partner. However, activities that don't require the person to keep a conversation topic active for instance looking at photographs can provide a structure for meaningful interactions.

Reminiscence sessions are a useful way to structure interaction to maximize the positive contribution that people with dementia can make. Although the working memory of people with dementia is impaired, long-term memory can often still function even at the latter stages of the disease. Guiding and supporting persons with dementia to take advantage of long-term memory helps them take a more active part in conversations. While valuable, traditional reminiscence activities involve prior planning and gathering of material, which is time consuming for busy relatives and caregivers. Also, conducting these sessions requires a great deal of effort. Although the person with dementia can find reminiscence sessions pleasurable and empowering, caregivers might find them far from a relaxed natural interaction

The computer-based system we developed to assist persons with dementia communicate and reminisce assumes that they might need help accessing their preserved longer-term memory. Technology-assisted reminiscence acts as a type of cognitive prosthesis to augment a person with dementia's ability to carry on a conversation with others and with the reminiscence facilitator. One obvious advantage of a computer-based system over traditional materials is that it can incorporate various media into one easily accessible device. The problems that RT facilitators reported with their current methods included: spending a large portion of their time preparing material for the sessions; not knowing enough personal information about therapy participants to prepare relevant cues; and finding appropriate digital content whilst at the same time maintaining a conversation with the group. Technology-assisted reminiscence supports facilitators by providing content that is relevant to an individual's interests and life history, as well as the shared interests for the group as a whole. Automatically recommending appropriate video content to cue group reminiscence can significantly reduce a facilitator's workload, allowing them to focus their time and attention on therapy participants.

The evaluation sessions showed that users easily understood how to use the technology. The multimedia content presentation interested and motivated facilitators. Users reported that the group reminiscence participants appreciated videos and music clips and identified with the multi-media content and triggered specific personal memories. The video clips are short because working-memory problems might preclude people with dementia from being able to follow long clips. In addition, the clips are intended to act as conversation prompts and not be too immersive. Reminiscence facilitators found

technology-assisted reminiscence enjoyable and easy to use and thought the system got clients talking more than usual. Our observations and their feedback gave us ideas about ways we could improve the interface. For example, electronically capturing data from the facilitator's subjective observations of person with dementia's engagement and communicative interaction in the reminiscence session.

We interviewed users at the end of the sessions and also asked them to complete a questionnaire. As expected, the caregivers did most of the direct operation of the system and selection of clips to play, but the person with dementia often prompted and directed them on selections and choices of content. With encouragement, several people with dementia also directly made suggestions for related content or topics. Even when the caregiver was using the touchscreen, it did seem that the direct and obvious cause and effect between their actions and the response of the system helped the person with dementia to remain engaged and the presence of the technology tool did not lead to any reduction in engagement or distraction between the facilitator and the group.

Overall technology-assisted reminiscence users appreciated the ease of setup and immediacy of access to reminiscence content. Because of the required preparation time, some caregivers don't use traditional reminiscence sessions as often as they like. When they do use them, they usually conduct sessions for an entire group, since it's difficult to justify the time investment for one person's benefit, given the many demands on care staff's time. Therefore, a system that can instantly produce access to a reminiscence session was perceived to be a clear boon as we thought the system could help by automatically initiating and maintaining the session, and thus leave the caregiver free to interact in a more equal manner with the person with dementia. However, whilst facilitators appreciated the access to greater volume of reminiscence content that they would not otherwise have found, contextual and environmental challenges impacted significantly on users ability to engage consistently with reminiscence technology and hence, to consistently deliver technology-assisted reminiscence to their residents.

It was observed that care home organisational barriers and technological barriers played a huge role in the maintenance and success of the REMPAD sessions. Initially, staff confidence in using technology was observed to play an important role in the reception and uptake of technology for reminiscence. If the carer is not comfortable using the

technology and unwilling to embrace it, then it is unlikely that it will be used or that the person with dementia will be interested, either. A key stumbling block remains for care staff in that; many may have no prior experience with technology at all. However, as displayed in the findings of this study, initial low user experience with technology did not impact negatively on user interest in using technology to make access to and availability of reminiscence easier to deploy for persons with dementia. REMPAD was demonstrated to staff in their care home and guidance on technology set-up was provided. We didn't know how staff might react to the high-tech system invading their domain. In fact, they were keen to see the idea developed further, which isn't surprising, since participation in reminiscence activities also helps caregivers. However despite this initial enthusiasm, with few homes providing full range access to Wi-Fi, which is a necessary essential to using REMPAD, managers and staff struggled to consistently guarantee service users full use of the technology available to them. The use of technology in reminiscence was further threatened by the lack of guaranteed access to hardware such as PC or laptop and the absence of protected time for reminiscence putting the occurrence of the groups at risk of cancellation due to equipment limitations or reprioritisation of activity co-ordinator time towards other events in the care home. One of the key challenges with the uptake of technology-assisted reminiscence was found to be the dependency on all of these factors to be in place and operational to ensure successful engagement in reminiscence. Whilst the technology-assisted method of procuring reminiscence content displayed itself to be person-centred in the resources it supplied, the application of technology also created uncertainty and jeopardy for reminiscence and person-centeredness. This jeopardy existed firstly because of uncertainty with resource availability and secondly, because of the structured that technology imposed on the reminiscence process. This structure shifted reminiscence from being a way of interacting and engaging spontaneously in meaningful activity with residents and formalised it into a meaningful structured group dependent on the presence of a physical resource. From what was observed in the findings of this study, when the technology-assisted reminiscence sessions proceeded they were perceived to be of value to the facilitator, the residents and the care home organisation. However, it was observed to be challenging in some circumstances for facilitators to proceed with technology-assisted reminiscence due to competing influences on activity co-ordinator time and value placed on reminiscence in context of other activities. Management and organisational factors

were observed to have an influence on the uptake of technology for reminiscence practice also (staffing resources, time allocation, prioritisation of activities, access to technology).

In summary, adopting a qualitative approach driven by the constructivism philosophy enabled a better understanding of the experience of providing activity co-ordinators with access to technology for reminiscence as well as the overall existing process of reminiscence and the process of using technology for reminiscence within the care home context. Essentially, this thesis challenges the notion that technology-assisted reminiscence is suitable for all care homes undertaking reminiscence with individuals with dementia. Furthermore, it implies there should be clear recommendations on technology use. Accordingly, this research has implications for therapeutic practice and future dementia research. The implications for therapeutic practice include some recommendations on technology use in reminiscence, focusing on the care home organisational environment and access to technology, the existing practices of person-centred care, the potential for a technology-based reminiscence tool to enhance meaningful interaction between the activity co-ordinator user and the residents. Implications for future dementia research include recommendations on investigating jeopardy in the application of technology for therapies in dementia care, and whether the introduction of technology tools to support person-centred care leads to a formalisation of therapies, impacting on their application. As the findings in the first section of this thesis highlighted, there is lots of jeopardy in the application of reminiscence in care homes, therefore, in general, implications for future research also include a recommendation to evaluate jeopardy in psychosocial therapeutic interventions in the care home environment.

6.4 Implications for therapeutic practice

This thesis is relevant to therapeutic practice as it explores a novel therapeutic approach to supporting reminiscence therapy with people with dementia in the care home setting. The approach uses recommendation search engine technology to improve access and efficiency of reminiscence therapy for facilitators and to stimulate cognition and communication of a person with dementia in person-centred manner, with social interaction as its primary goal. I have explored the existing processes of providing reminiscence therapy, engaging with technology and using technology-assisted

reminiscence in the care home contexts, preferences and needs, and from this I have learned some valuable lessons concerning the use of technology for reminiscence with people with dementia.

Using technology to procure and deliver content for reminiscence is not new amongst care home activity coordinators, as reminiscence was reported to have been previously carried out using other methods (YouTube, RTE Player, Spotify), evidence has shown that ICT has the ability to improve such interventions, making them less arduous for the carer and potentially more beneficial for the person with dementia. This in turn can improve the quality of life of both the person with dementia and their carer. It is therefore of value to consider the types of support and guidance required to enable access and uptake to such technology-based resources to ensure that access and benefits of the intervention are upheld, as while technology did show benefits for the reminiscence process, there were many associated risks with its delivery. Thus, using technology-assisted reminiscence within a therapeutic approach leads to multiple considerations for potential therapists, carers or researchers planning to use technology with people with dementia.

Factors to consider when using technology-assisted reminiscence in the care home context

- Knowing the person's story and providing opportunity for meaningful interaction with the person with dementia is central to the reminiscence process. Technology enabled reminiscence needs to preserve the social component of reminiscence activity and opportunity for meaningful interaction.
- Education on technology-assisted reminiscence must address wider issues e.g. dementia and how this affects cognitive, linguistic and social participation in the person, person centeredness, and the suitability of technology-enabled reminiscence application for a person with dementia.
- The reliability of technology in the care home and the prioritization of technology to meet the needs of staff and residents in the home.
- Technology-assisted reminiscence needs to be easy-to-use and provide efficient, accurate, personalized and engaging content for reminiscence, ultimately leading to successful group reminiscence outcome.

- The characteristics of user familiarity with technology and existing skill level pose a need for clear and intuitive interfaces with easy-to-use interaction modalities for ensuring the successful usage of technology in reminiscence.
- Organizational barriers of senior leadership, cost and regulatory requirements threaten technology-assisted reminiscence in the care home and create pressure and potentially negative experience for activity coordinators and participants.
- Technology-assisted reminiscence should be used over a period of time to allow participants to adjust to the technology and increase the opportunity to experience therapeutic benefits from it.
- Technology for reminiscence formalizes the reminiscence process and places a structure on the facilitator–resident engagement with reminiscence this creates jeopardy in reminiscence process as if the resource is not available then the reminiscence may not proceed.
- The use of technology in reminiscence should be highly interactive, allowing the facilitator to navigate through it to support the discussion unfolding amongst the group and not interrupt it by attempting to follow a pre-planned list of content recommendations.

Two distinct objectives for the use of the technology-assisted reminiscence therapy may be considered as follows:

1. Maintaining the identity of the person with dementia: The technology-assisted reminiscence enables the activity coordinator to capture a basic biography on the social interests of the person with dementia. This is then used by the system to make automatic person-centred recommendations of reminiscence content. This supports the theory that personalised materials are needed to engage the person with dementia in meaningful interactions. However, there needs to be a commitment from the activity coordinator to engage the person with dementia in selecting content to watch from the recommendations made and supporting discussion on this content. Accepting that this process is more challenging with people with more severe impairment there will be merits in encouraging people with dementia to engage actively in the content selection stage. This engagement with technology can be undertaken in a group context with other

person with dementia. In which case the overall group profile will be used to inform the recommendations made. Or, the reminiscence process can be undertaken on a 1:1 basis.

2. Encouraging communication with other people with dementia and with care staff: Technology-assisted reminiscence can support group-based reminiscence by making recommendations that reflect participants' preferences and interests. For use in groups, projection systems or large screens are required. Training for group leaders is needed to facilitate discussion and allow space for participants to share stories and enjoy narrative reminiscence. In any reminiscence group there is the risk that the available memory triggers may stimulate negative or upsetting memories for the participants. Those facilitating these groups will need skills in acknowledging emotions in the participants and using this as an opportunity to reinforce personhood in the person with dementia. With more powerful multimedia memory triggers, following the direction of the participant's discussion in response to these, rather than being driven by a set programme of images and music is a necessary skill in facilitating reminiscence groups. This requires the use of technology to be highly interactive, allowing the facilitator to navigate through it to support the discussion unfolding amongst the group and not interrupt it with attempting to follow a set list of recommendations. Education is needed to ensure that facilitators maintain flexibility in their interactions with reminiscence groups to allow for the preservation of social agency amongst members. Otherwise, there is a danger that the person with dementia will become a passive viewer, rather than engaged participant.

6.5 Implications for future research

The movement away from an institutional model of care to one that accepts person-centred care, as the guiding standard of practice is part of a culture change that is impacting the provision of aged-care services around the world. In terms of evaluation of a person-centred care intervention, there is a greater need for adoption of a standardised study design and development and/or adoption of instruments that will capture meaningfully the impacts of the intervention on the range of stakeholders. It is important to embed a study design that captures the positive and negative unintended consequences of the intervention.

Understanding in depth how different forms of ICT have been used to benefit RT and studying the different types of ICT used can lead to an understanding of how different technologies affect the delivery, quality, and effectiveness of an RT intervention. Furthermore, exploring the types and content of media beneficial to individuals at different stages of dementia is a question for further research. This understanding can aid future researchers and clinicians in designing or implementing technology systems for use in dementia care.

The inclusion of family carers in reminiscence engagement with their relatives with dementia through technology is another area of research that should be explored. The opportunity for this emerged anecdotally from interviews with care home activity coordinators and descriptive evaluations in the reminiscence literature suggest that this joint approach may improve the relationship between carer and person with dementia, benefiting both. As it is the breakdown of this caregiving relationship that increases the likelihood of the person with dementia being placed in an alternative care setting, such as a care home, this effect could have far-reaching implications for families, society and public spending.

6.6 Summary

In this final chapter, I outlined the way that the psychosocial understanding of reminiscence therapy has influenced this current study in the application of technology into reminiscence to practice in the care home context. I have briefly responded to the limitations of the study. Lastly, I have presented implications for therapeutic practice and future research.

Taken as a whole this research draws attention to the potential of technology-assisted reminiscence use within a therapeutic intervention in early to mid- stage dementia. It provides a detailed exploration through a case study methodology as influenced by the psychosocial understanding of the application of reminiscence therapy in dementia care and the philosophy of constructivism. This research provided new insights on translating technology-enabled reminiscence into clinical dementia applications. It presented an innovative, therapeutic approach to supporting the maintenance of communication and social interaction in people with dementia, thus adding to the knowledge of meaningful psychosocial interventions in early-stage dementia care. Throughout the research

process, I have endeavoured to maintain reflexivity and became aware of my own role in interpreting the research, I realise that the research may have been conducted and interpreted differently had different philosophical and theoretical assumptions been chosen to guide the research process. Thus, I make no claim that the current research presents universal findings; rather, it offers an alternative view to common experimental designs of reminiscence research and studies of technology in residential care home for people with dementia. This research was an important demonstration of how inclusive and participatory approaches to working with people with dementia can be designed and highlighted the way in which new media can be used to compensate for loss of social agency. The findings and associated challenges with integrating technology into reminiscence practice in care homes enabled me to suggest some practical recommendations for future therapeutic technology-assisted reminiscence use. This has also opened the door to further opportunities for the exploration of technology and its potential to support person-centred care and social interaction in dementia care.

Appendices

Appendix A. MMSE

Folstein Mini-Mental State Exam		
I. **ORIENTATION** (Ask the following questions; correct = ☑)	**Record Each Answer:**	(Maximum Score = 10)
What is today's date?	Date (eg, May 21)	1 ☐
What is today's year?	Year	1 ☐
What is the month?	Month	1 ☐
What day is today?	Day (eg, Monday)	1 ☐
Can you also tell me what season it is?	Season	1 ☐
Can you also tell me the name of this hospital/clinic?	Hospital/Clinic	1 ☐
What floor are we on?	Floor	1 ☐
What city are we in?	City	1 ☐
What county are we in?	County	1 ☐
What state are we in?	State	1 ☐
II. IMMEDIATE RECALL	(correct = ☑)	(Maximum Score = 3)
Ask the subject if you may test his/her memory. Say "ball, "flag," "tree" clearly and slowly, about on second for each. Then ask the subject to repeat them. Check the box at right for each correct response. The first repetition determines the score. If he/she does not repeat all three correctly, keep saying them up to six tries until he/she can repeat them	Ball	1 ☐
	Flag	1 ☐
	Tree	1 ☐
		NUMBER OF TRIALS: _____
III. **ATTENTION AND CALCULATION**		
A. Counting Backwards Test	(Record each response, correct = ☑)	(Maximum Score = 5)
Ask the subject to begin with 100 and count backwards by 7. Record each response. Check one box at right for each correct response. Any response 7 or less than the previous response is a correct response. The score is the number of correct subtractions. For example, 93, 86, 80, 72, 65 is a score of 4; 93, 86, 78 70, 62, is 2; 92, 87, 78, 70, 65 is 0.	93	1 ☐
	86	1 ☐
	79	1 ☐
	72	1 ☐
	65	1 ☐
B. Spelling Backwards Test		
Ask the subject to spell the word "WORLD" backwards. Record each response. Use the instructions to determine which are correct responses, and check one box at right fore each correct response.	D	1 ☐
	L	1 ☐
	R	1 ☐
C. Final Score	O	1 ☐
Compare the scores of the Counting Backwards and Spelling Backwards tests. Write the greater of the two socres in the box labeled FINAL SCORE at right, and use it in deriving the **TOTAL SCORE**.	W	1 ☐
		FINAL SCORE_____ (Max of 5 or Greater of the two Scores)

IV. **RECALL**	(correct = ☑)	(Maximum Score = 3)
Ask the subject to recall the three words you previously asked him/her to remember. Check the Box at right for each correct response.	Ball	1 ☐
	Flag	1 ☐
	Tree	1 ☐

V. Language	(correct = ☑)	(Maximum Score = 9)
Naming	Watch	1 ☐
Show the subject a wrist watch and ask him/her what it is. Repeat for a pencil.	Pencil	1 ☐
Repetition		
Ask the subject to repeat "No, ifs, ands, or buts."	Repetition	1 ☐
Three -Stage Command		
Establish the subject's dominant hand. Give the subject a sheet of blank paper and say, "Take the paper in your right/left hand, fold it in half and put it on the floor."	Takes paper in hand	1 ☐
	Folds paper in half	1 ☐
	Puts paper on floor	1 ☐
Reading		
Hold up the card that reads, "Close your eyes." So the subject can see it clearly. Ask him/her to read it and do what it says. Check the box at right only if he/she actually closes his/her eyes.	Closes eyes	1 ☐
Writing		
Give the subject a sheet of blank paper and ask him/her to write a sentence. It is to be written sponataneously. If the sentence contains a subject and a verb, and is sensible, check the box at right. Correct grammar and punctuation are not necessary.	Writes sentence	1 ☐
Copying		
Show the subject the drawing of the intersecting pentagons. Ask him/her to draw the pentagons (about one inch each side) on the paper provided. If ten angles are present and two intersect, check the box at right. Ignore tremor and rotation.	Copies pentagons	1 ☐

DERIVING THE TOTAL SCORE	
Add the number of correct responses. The maximum is 30.	TOTAL SCORE _____
23-30 = Normal / 19-23 = Borderline / <19 = Impaired	Up to Grade 8 Level

Folstein MF, Folstein SE, and McHugh PR, 1975

Appendix B. Dublin City University Research Ethics Committee Approval

Ollscoil Chathair Bhaile Atha Cliath
Dublin City University

DCU

Dr. Adam Bermingham
Clarity

24th July 2012

REC Reference: DCUREC/2012/119

Proposal Title: **A study investigating the feasibility and usability of conducting Reminiscence Therapy via REMPAD (Reminiscence Therapy Enhanced Material Profiling in Alzheimer's and other Dementias)**

Applicants: Dr. Adam Bermingham, Ms. Julia O'Rourke, Prof. Alan Smeaton, Dr. Kate Irving, Dr. Ronan Collins

Dear Adam,

Further to expedited review, the DCU Research Ethics Committee approves this research proposal. Materials used to recruit participants should note that ethical approval for this project has been obtained from the Dublin City University Research Ethics Committee. Should substantial modifications to the research protocol be required at a later stage, a further submission should be made to the REC.

Yours sincerely,

DCU
Research & Innovation

Dónal O'Mathúna

Dr. Donal O'Mathuna
Chairperson
DCU Research Ethics Committee

Taighde & Nuálaíocht Tacaíocht
Ollscoil Chathair Bhaile Átha Cliath,
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Appendix C. Informed Consent Documents

REMPAD

PLAIN LANGUAGE STATEMENT

An exciting new group reminiscence therapy project

What is Reminiscence Therapy?

Reminiscence therapy is a form of therapy that is most often used with **older persons**. It involves looking into the past life experiences of a person and **sharing memories**. It is most often used with older people to help maintain **good mental health**.

Research shows that reminiscence therapy can have **positive and lasting effects** on mood, memory skills and social interaction with the elderly community.

What is REMPAD?

REMPAD is a tool designed to support reminiscence therapy. It is **a way of finding** video and music material from the past.
It is designed to support activity coordinators and therapy facilitators to conduct **more interactive** reminiscence therapy sessions.

Clips will be shown on a large screen for the group to view and chat about the **rare old times.**

Who can join the REMPAD reminiscence therapy group?

Anyone with memory difficulties know as dementia can join.
There will be **6 people** in each group.

What is involved?

Group will happen **2 days** a week for **7 weeks**.

Your nursing home activity coordinator will be trained by an **experienced Spech & Language Therapist** on how to conduct good reminiscence therapy sessions using the REMPAD system. Support will be provided by the research team during the REMPAD sessions.

Information Document for Families

An exciting new reminiscence therapy group

Dear Family,

Your family member has been invited to be involved in the REMPAD Digital Reminiscence Therapy group starting in their nursing home in October.

What is REMPAD?

REMPAD is a way of connecting with the past. It is a tool designed by clinicians to support reminiscing or reflecting on a persons life story. REMPAD works by finding video clips that relate to the interests of the group participants, the times and places they lived in. The clips will then be played on the large screen. The aim is to share memories and talk about the past.

Who can join?

Anyone with memory difficulties. There will be 6-8 people per group.

What is involved?

The Reminiscence Therapy group will run twice a week for 7 weeks. Before and after the 7 weeks each group member will be asked to undertake a language and memory profile. They can choose to either participate or decline this component. This will not influence their right to participate in the group. After the group we will provide written feedback to your family member on the information obtained from these profiles and their participation in the group. This feedback will provide us with information to help us to make improvements to REMPAD.

Who will run the group? _____ the activity co-ordinator will run the group.

When will it start? The group will start in October.

How long will it take? Groups will last 45mins

How can I get more information? If you would like to learn more about REMPAD I would be happy to meet you questions

CONTACT: JULIA O'ROURKE, REMPAD Coordinator

Telephone: 086 3044454 Email: orourke.julia@gmail.com

REMPAD

Exciting!opportunity!new!group!
reminiscence!therapy!project!!

What is REMPAD?

REMPAD is a way of connecting with the past.

Your favorite movie clip, song, holiday memory can be found and played on the large screen.

The aim is to share memories and **talk about the past**.

!

Who can join?

If you have memory difficulties can join.

There will be **6 people** in the group.

What is involved?

Group will happen **2 days** a week for **7 weeks**.
Your language and memory skills will be tested before and after the 7 weeks.

You will get **feedback** on how you did on the tests.

When the group is finished you will be asked **questions** about it.

Your answers will help us to **make improvements**

Where will the group happen?

In your own **nursing home**

Your activity coordinator _____ will run the group.

When will it start?

OCTOBER 2012

How long will it take?

45mins

How can you join?

By **signing** the attached consent form

More information?

If you would like to learn more about REMPAD
I am happy to answer any **questions** you have

Withdrawal: **Involvement in the research study is voluntary. Participants may withdraw from the research study at any point**

Declaration of Funding: **This project is funded by an Enterprise Ireland grant to develop the** REMPAD System for use with persons with dementia

CONTACT: JULIA O'ROURKE, REMPAD Coordinator
Telephone: 086 3044454 Email: orourke.julia@gmail.com

Participation Form

I _____ of _____
[Your Name] [Nursing Home Name]

☐ ACCEPT ☐ DECLINE

… to participate in the REMPAD study. I understand that my participation is voluntary and that I may withdraw my participation at an time.

Participant Signature: _____

Participation in this study has been explained to me by _____

Signed: _____

Please return to:

Julia O'Rourke,
Rempad co-ordinator
C/0 Clarity, DCU
Tel. no. 086-3044454

!

Appendix D. Care Home Manager Telephone Interview Guide

Questions	
1	Introduce REMPAD
2	This therapy would require some technology / hardware, do you have the following:
	- A group room?
	- Internet connection, Wi-Fi?
	- Big screen TV?
	- laptop or PC in group room?
	- Do you have an activity co-ordinator?
3	Who manages and runs the group activities? E.g. Activity co-ordinator, staff nurse or volunteer?
	What is their position?
4	What type of activities are people with dementia currently engaged in?
5	How satisfied are you with the usefulness of these resources or activities?
	Are they useful?
6	Do you feel that you are getting value for money from these?
7	Have you previously purchased any other technology resources for therapy activities? (e.g. computer, computerised software programmes, I-pad and apps?)
8	Do you have a budget for the purchasing of such resources (therapy, activity or other related)?
9	Who would approves the purchasing of therapy/activity resources for dementia care? (e.g. Assistant Director of Nursing, Director of Nursing or Nursing Home Manager?)
10	How much would their budget be?
11	Do you have a budget for staff training in therapeutic care activities?
12	Does training happen in-house or externally?
13	What information would you require in order to agree to using this type of dementia care resource?
	Case studies?
	Clinical data?
	Free trial period?
14	How long is your approval process for new services?
15	Would you like to receive more information about this RT resource?

Appendix E. Preliminary Pre-Design Interviews

Reminiscence Practitioner Study Semi-Structured Interview

A Short survey on interviewer's computer skills, their pervious reminiscence therapy experiences, etc. (Approx. 10min)

1. How would you rate your computer skill level?

As a novice user, average user, above average user, advanced user

2. Do you have any experience with iPad or other tablet PC before? If so, what is your skill level on using tablet PC?

3. How often do you use video-sharing website, YouTube for example?

4. Did you facilitate a reminiscence therapy session before?

5. How many times?

6. Were they group session or individual session?

7. How many people in a group session on average?

8. Did you use any technical tools and systems to assist you while facilitating a reminiscence therapy?

9. Did you use any multimedia or video content during any of these sessions? Any assist of video sharing website?

10. What was the biggest challenge you met during a reminiscence therapy?

11. Any other technical problems found?

12. Have you heard of any protocol for reminiscence?

Appendix F. Semi-structured Interview: Post-REMPAD Field Study

System Usability Questionnaire

1. It was simple to use this system.				
Strongly agree				*Strongly disagree*
1	2	3	4	5
2. I felt comfortable using this system.				
Strongly agree				*Strongly disagree*
1	2	3	4	5
3. It was easy to learn to use this system.				
Strongly agree				*Strongly disagree*
1	2	3	4	5
4. I believe I could become productive quickly using this system.				
Strongly agree				*Strongly disagree*
1	2	3	4	5
5. The information provided for the system was easy to understand.				
Strongly agree				*Strongly disagree*
1	2	3	4	5
6. The organization of information on the system screens was clear.				
Strongly agree				*Strongly disagree*
1	2	3	4	5
7. The interface of this system was pleasant.				
Strongly agree				*Strongly disagree*
1	2	3	4	5
8. I liked using the interface of this system.				
Strongly agree				*Strongly disagree*
1	2	3	4	5
9. This system has all the functions and capabilities I expect it to have.				
Strongly agree				*Strongly disagree*
1	2	3	4	5
10. Overall, I am satisfied with this system.				
Strongly agree				*Strongly disagree*
1	2	3	4	5

Appendix G: Inclusion Criteria for Group Participants engaging in REMPAD Field Study.

Inclusion criteria for selection group participants with dementia;

- Must have the ability to attend to and tolerate social interaction within a group context as observed by the activity coordinator
- Must have a retained ability to engage in verbal communication
- Must have obtained informed consent from the participant via the process identified above

Exclusion criteria for person with dementia;

- Presence of visual impairment that limits ability to participate in activity involving visual stimuli
- Presence of significant hearing deficits (not corrected by hearing aids) that limit ability to participate in activity involving auditory stimuli
- Any co-occurring major psychiatric illness or depressive mood disorder that may limit ability to engage in a socially interactive group context or present with behaviour that may be socially disruptive to other group members
- Any concurrent acute medical illness

Facilitators were advised to have no more than 6-8 participants in each reminiscence group.

Appendix H: Resident Post-Group Interview

Resident Code: _____ Date: _____

Resident Location: _____ Group Name: _____

_____

POST-STUDY INTERVIEW

Instruction: Interview to be conducted with participants upon completion of their last group session

1. Did you enjoy attending the (NAME OF GROUP)/ REMPAD Group?

YES ☐ NO ☐

(Ask the participant to rate enjoyment on the scale overleaf)

Circle rating of enjoyment 1 2 3 4 5

Ask the participant to specify….

2. What did you enjoy/not enjoy?

_____

_____

_____

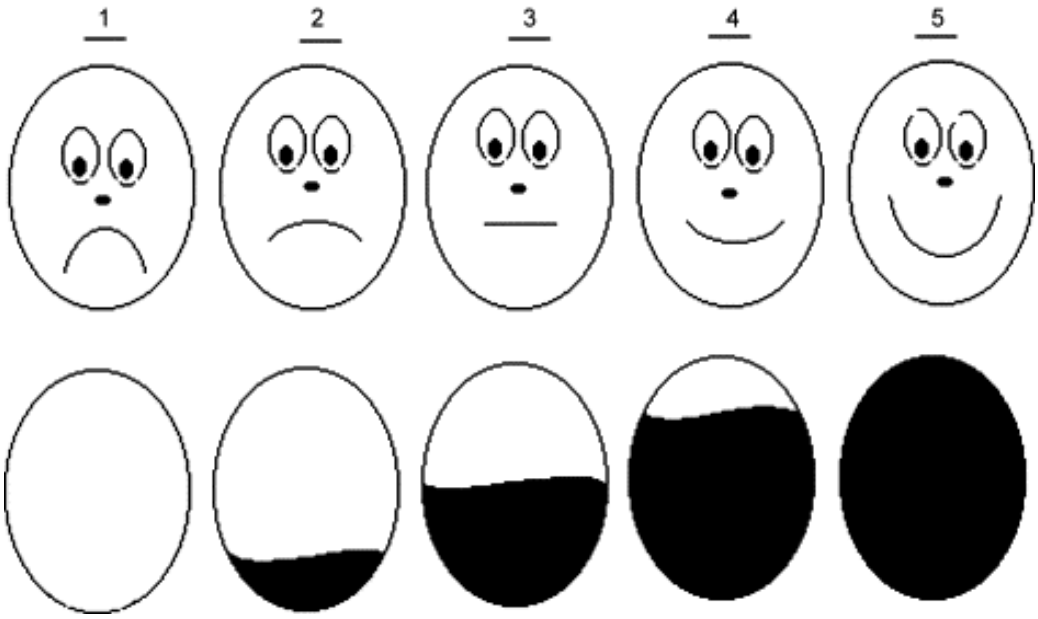
3. Would you like to have this service (REMPAD) in your nursing home in the future?

YES ☐ NO ☐

_____

_____

Please rate your enjoyment with the group?

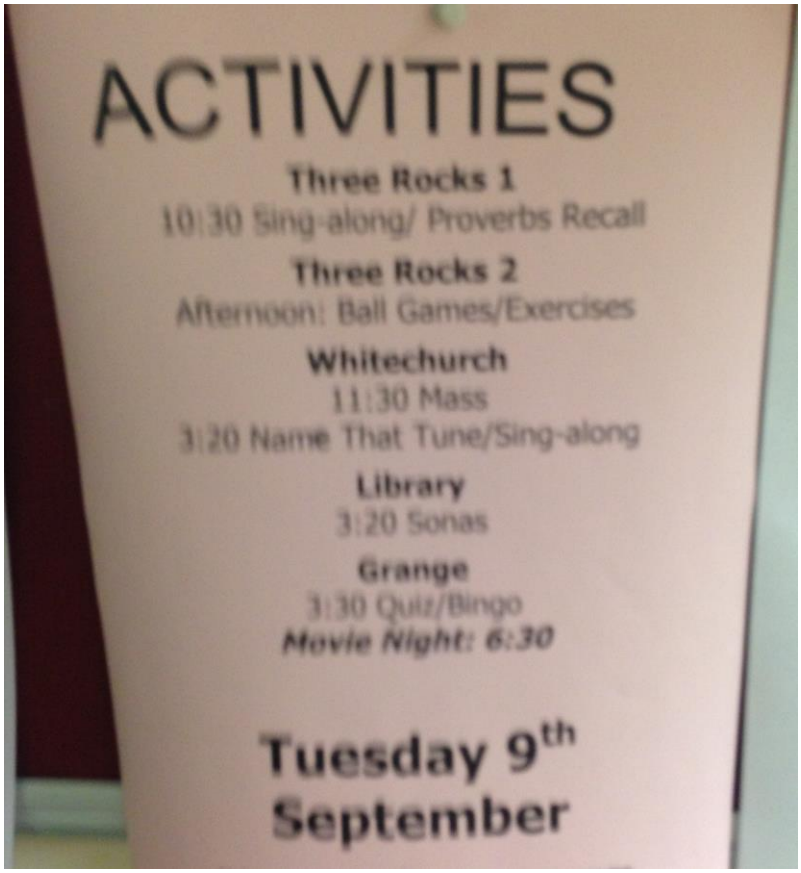


Thank you

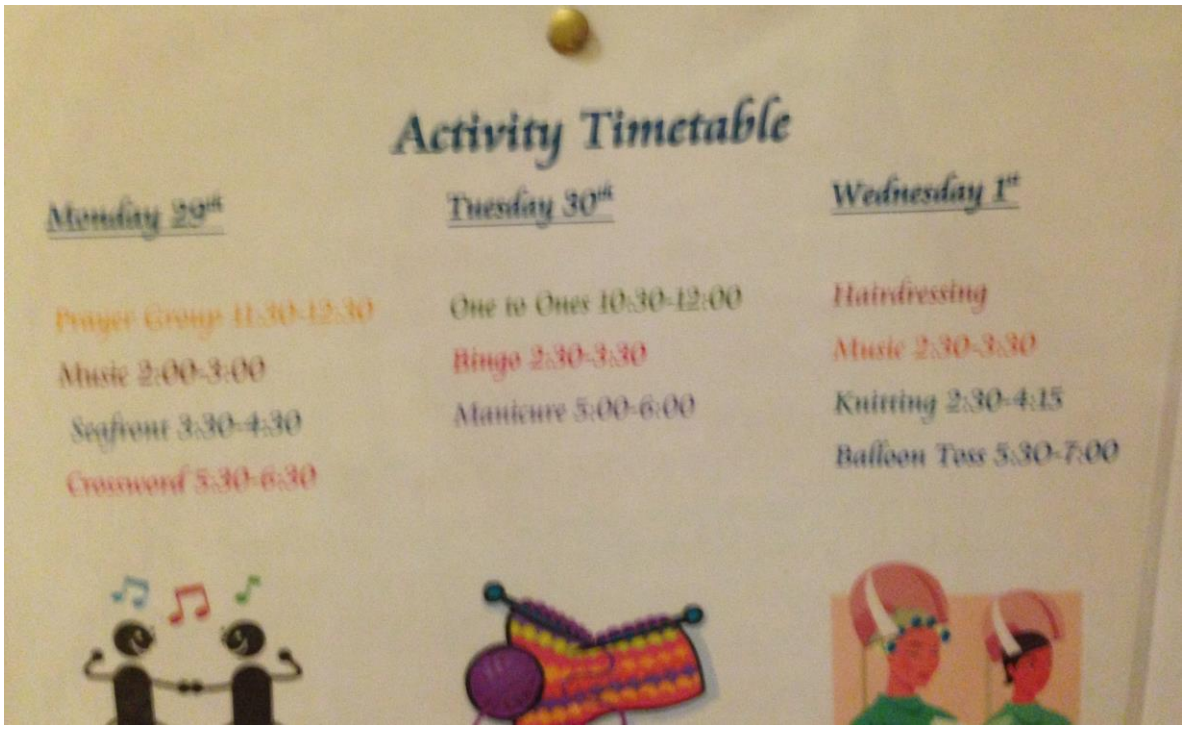
Appendix I. Checklist for Capturing Physical Environment of Care Home

Observer:	***Location:***	***Date:***	***Time:***
Activity co-ordinator: M F	***Age:***	***Grade:***	***No. Residents:***
No. Activity Co-coordinators:	***Activity Experience:***		
Description of environment:			
Reception area			
Resident social areas			
Activities/group room			
Activity Co-coordinator Role:			
Daily schedule			
Experience			
Aim and purpose			
References made to:			
Needs of the residents			
Resources			
Time			
Training			
Funding			
Technology			

Appendix J. Sample Care Home Activity Schedules


ACTIVITIES
Three Rocks 1
10:30 Sing-along/ Proverbs Recall
Three Rocks 2
Afternoon: Ball Games/Exercises
Whitechurch
11:30 Mass
3:20 Name That Tune/Sing-along
Library
3:20 Sonas
Grange
3:30 Quiz/Bingo
Movie Night: 6:30
Tuesday 9th
September


September: Daily Films Showing
Monday 8th: 84 Charing Cross
Tuesday 9th: Waking Ned Devine
Wednesday 10th: The Big Wedding
Thursday 11th: South Pacific
Friday 12th: Remains of the Day
Saturday 13th: Ryan's Daughter


Activity Timetable
Monday 29th
Prayer Group 11:30-12:30
Music 2:00-3:00
Seafront 3:30-4:30
Crossword 5:30-6:30
Tuesday 30th
One to Ones 10:30-12:00
Bingo 2:30-3:30
Manicure 5:00-6:00
Wednesday 1st
Hairdressing
Music 2:30-3:30
Knitting 2:30-4:15
Balloon Toss 5:30-7:00

Activity Timetable

Thursday 2nd

Baking 10:00-12:00

Fit for life 2:30-4:00

Butterfly 5:00-6:30

Friday 3rd

Aromatherapy 9:00-12:00

Art and Craft 2:30-4:00

Walk & Talks 5:00-6:00




Saturday 4th

Mens Club 10:30-12:00

Movie Matinee 2:30-4:30

Quiz/Crossword 6:00-8:00

Sunday 5th

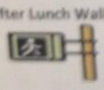
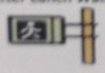
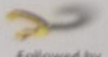
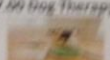
Tea and Coffee morning 10:00-12:00

Seafront 2:30-4:30

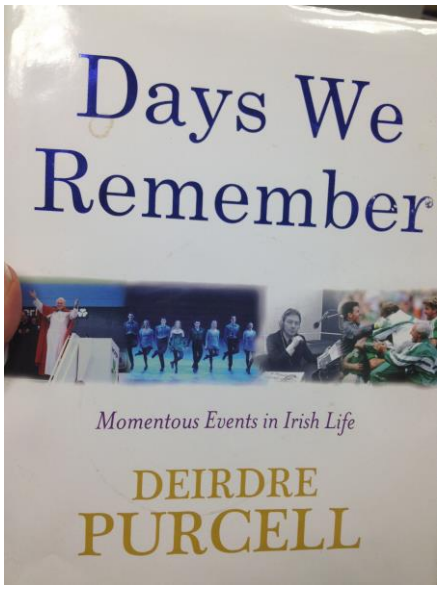
Butterfly/One to Ones 5:00-7:00

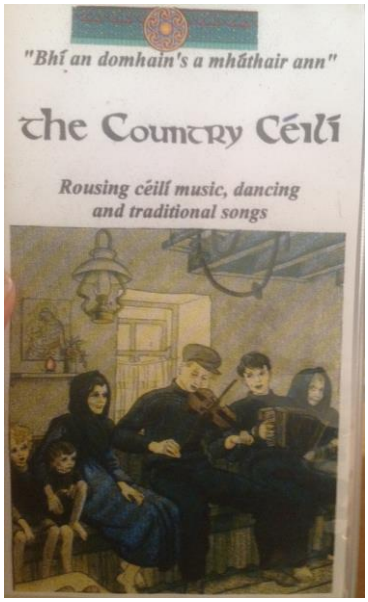
Daily Activities

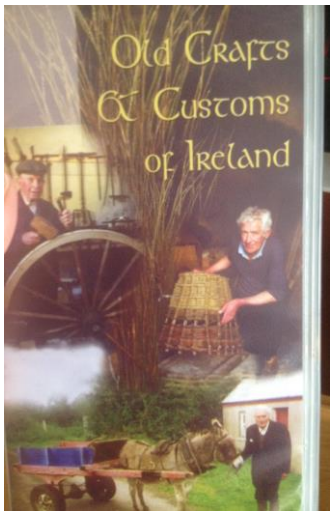
Week Commencing Monday 17th to Sunday 23rd September 2012

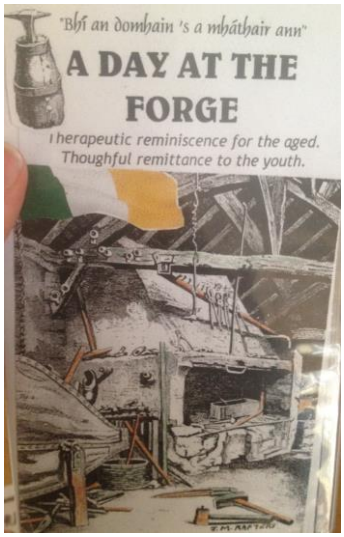
Activities	Monday 17	Tuesday 18	Wed 19 Communion	Thursday 20	Friday 21	Saturday 22	Sunday 23
Morning	Aisling Activities 11.00 Fit for Life  12 Noon Proverbs After Lunch Walk 	Aisling Activities 11.00 Exercise Class & Ball Games  12 Noon Irelands Own After Lunch Walk	Aisling Activities 11.00 Rosary 12 Noon Daily News  After Lunch Walk 	Aisling Activities 10.00 to 12.00 Massage Therapy 11.00 am Witty Knitting After Lunch Walk	Aisling Activities 11.00 Fit for Life  After Lunch Walk 	Aisling Activities 11.00 am Daily News, Tea & Chat  After Lunch Walk	9.00 Mass on Radio LMFM 11.00 Mass on RTE 1 
Afternoon	3.00 Sing-a-long with percussions 	2.30 Live Music with Brendan Keogh 	2.30 Quiz Time  Followed by Reminiscence 6.30 Tea Dance Night 	2:30 Live Music with Pat Lee  7.00 Dog Therapy 	2:30 Arts & Crafts 	2.30 Movie Club 	2.30 Live Music with Brendan Keogh 

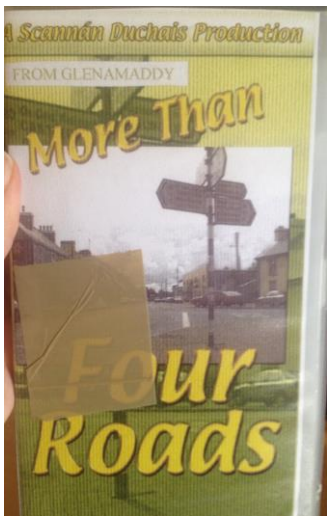
Appendix K. Sample Reminiscence Resources

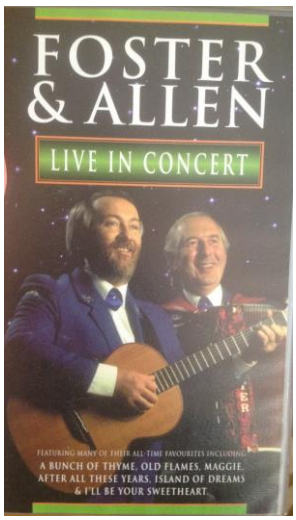












Appendix L. Interview Transcripts

Pre-Design Interview EF

EF: Respondent
I: Interviewer

Age: 30 years

Occupation: Senior Speech & Language Therapist in Age Related Healthcare Service comprising of 3 residential care units located on the sight of a large Dublin inner city acute hospital.

Interview Duration: 32mins

I: Thank you in advance we really appreciate your time. I would like to get your feedback on a few design options. The idea here is to build a computer system that will help facilitate YouTube Reminiscence Therapy sessions that you would be familiar with. What we want to do is change things slightly, so that instead of just opening YouTube you are opening REMPAD – Reminiscence Enhanced Material Profiling in Alzheimer's and Dementia. So in the background the system learns the profiles of people that are involved in reminiscence the idea is to reduce the pressure on facilitators to come up with new content. So we recommend content very much like Amazon recommends books for you to purchase. Doing this in group sessions encourages participation. The project is to build this system and test it in residential care settings with therapists and user input. We have some design done and we want to get some feedback from people like yourself who would be the target users of the system just about how they feel about the design and if they have any suggestions about things we haven't considered.

EF: That sounds amazing. Obviously you are probably in the early stages of developing it but, I mean something that will take account of peoples preferences and kind of build a repertoire or recommend different videos or music or whatever based on what has already worked I mean it takes a lot of the work away for the therapist. So, that sounds amazing.

I: In terms of your computer skills and your experience of reminiscence therapy, first of all, how would you rate your computer skills level?

EF: I'm probably a little bit above average. For some really kind of technical things or newer programmes and stuff I would need a little bit of help but, I do use the computer a lot and I am familiar with using an iPad and an iPhone.

I: How often do you use YouTube?

EF: Personally I would use it a good bit. A couple of times a month but, professionally once a month.

The technical side of it can be quite difficult, particularly in the hospital setting where you have your, we have IMS here, with our kind of information Technology Servers. They are very good at doing things for us an giving us access to the internet. When I am leaving this building and going over to the ward there is not very much they can do to help me over there if you know what I mean in terms of releasing internet material and that kind of thing. YouTube is normally blocked. We do get some access to it here in our department here because we used it for different projects like reminiscence and group therapy but, it is quite limited.

I: How many times do you facilitate group therapy reminiscence sessions?

EF: We actually have a lot of reminiscence materials in our department paper based reminiscence activities tools in our department. It was just the one time I said I would give this video thing a go and see how it works out but, it was quite difficult in a practical way.

I: What is the usual group size?

EF: I think I had 4 men in the group. I really wanted to use this with, we have a male unit, over in the residential unit and they really do need a lot of help connecting with each other, and conversationally they do tend to be quite passive and in a way institutionalized as well because they have been there quite a long time. This is just a way of targeting that and trying to get them to share stories and experiences and chat to each other and connect and bond. I really wanted to zone in on the men over there I feel that they need it more than the ladies do. The ladies seem to chat more amongst themselves or maybe that is just my perception. For that particular group I had about four of them, it was a while ago now, but they did seem to respond quite well to it. I was using a netbook so the screen was quite small. So, ideally the screen size should be a TV screen size and that would be better.

I: What was the biggest challenge you met during your experience of running the group reminiscence therapy?

EF: I suppose when you have technical limitations, you know we have a small screen to view and you are passing that around making sure everyone can see it and you are still trying to facilitate the group and still trying to facilitate conversation it's just, there is a lot of things to manage at the same time. Where, if some of those technical problems were taken away. So if it was a bigger screen or more automatic. Then I could spend my time better, coaching people, or facilitating people or encouraging them to participate. So it is basically more just the practical element of using video that is difficult.

I: That is what we are aiming at solving with REMPAD.

EF: To be honest with you group therapy in general can be very difficult. You have got so many different variables and personalities in the room and maybe one day somebody is in a bad mood or one day somebody doesn't really want to come down. You've got so many other variables there that you don't really want to have to struggle with something that is technical or difficult to use you want something that is ready to go. I suppose that is why we rely more on pictures and photos and music, they are just more reliable. You don't need anything to use them, you just bring them with you. They are kind of an easy fall back. But, certainly if you could just use the video in the way that you have done so quite successfully in your session then it would be great because it is just very engaging for people and it does tend to stimulate conversation.

I: Next, I would like to show you some of the designs for the system, the REMPAD system. So before you start each reminiscence session, you need to log into the system, there you will see a list of menu options. For example, you can add a new participant, like here, where you fill in their name, sex, where they lived, when they were born, their occupation and they their social interests and hobbies and other information you think which is valuable. Because this part is very important for the recommender to recommend appropriate videos that are more likely to be interesting to the participants. Then after you have entered information for all of the individual participants you can create a group and if you are running a group session then the system can recommend videos for the group.

EF: Yeah, I mean that makes sense, I suppose if you had someone whose hometown was in a different country then you would have a video relevant to that. Then that makes a lot of sense.

I: Yes because it is based on their profile. So for example, this person particularly likes sport, so more likely the recommender will recommend content related to sport for them. After you enter the profiles for every participant you can set up a group. The group size may vary from 6-10 people or maybe only 3 people. You can select whom you want in your group. Then the recommender can find the common interest in the group so based on the group member it can recommend videos of common interest for them as well.

Then it goes to the main screen. The main screen is on this page. So imagine you have the iPad in your hand. The system will recommend 2 videos to you and you can ask the residents what they would like to see. On the big TV screen the participants will see these video recommendations also. If the group don't like any of these options you can choose to show them 2 more videos. You can do this again and again until you find the video all of them want to watch.

EF: Okay, so it is still quite interactive even though it is making suggestions.

I: You can use the free text search in this search box, like a topic or title of a video and click search. Then options for your search will return. The system will recommend videos based on peoples personal interest and background. So it will be random but ranked by person and group profile interests.

EF: It is just a bit more specific about the type of video it is recommending.

I: Yes, once you click into them, they will be played on the group screen TV/projector and on the iPad.

EF: okay

I: If after looking at what is recommended there is nothing of interest for people you can search for something by searching in the search box.

EF: okay

I: Which version of these screen designs do you think is more user friendly for you? Do you like the option of selecting categories for example, music or would you prefer to use the function where you switch on multiple categories and do the search for everything?

EF: I have to say immediately the very simple version of just the videos is appealing to me from a simplistic point of view because it is just very straightforward. This version here with the classification is also nice because you may start a conversation with someone in the group and it may lead on to maybe choosing a music video or people or sports maybe. I think this one might be a bit more difficult to use because it is a bit more complex. But, I suppose if you got used to using it may work quite well. I think the participants in the group may not understand this kind of representation of it very well. I suppose what your goal is, is that the group leader with know what it is.

I: The participants will always see a choice or a video playing and the screen view with the great detail will be the one that is on the iPad in the facilitator's hands or on their lap.

EF: Oh okay, well I suppose in that case I have used iPad before so I wouldn't be afraid to use any of these representations. Probably this one (points to option 1) you are going to use a little more because it is quite straightforward but, you still have some flexibility and specificity in choosing the video so that one does appeal to me a little bit more. But, I suppose it is a case maybe of trying things out and seeing what one works best.

I: So just to summarise, by default option 1 will select all of the values and option 2 will select you can use it our leave it as a default value all of the categories just leave you have more choices for the videos. All of the categories give you more choices. Next you can input this feedback form it is very important to the system to improve the accuracy of future recommendations by collecting information from the participants.

EF: Okay, to be honest this is very useful even from the therapist point of view because we are always looking for something to track of how well people are participating in the group and how satisfied they are with it. So I suppose while this is helping the system, this is very helpful from the group leader perspective.

I: In some of the other groups we have come across they use and SLT assistant/student to fill out observations scales on engagement and interaction. Do you do anything like that here?

Yeah we do, we don't have a SLT assistant here so we would be doing it very much at the end of a group and using pictures and icons to try and get people to rate their level of satisfaction with the group and what was discussed in the group and how it was discussed. That kind of thing is really subjective anyway but we are always looking for something. But, if you wanted to observe and record a participant's engagement and interaction in detail you would need someone else, someone outside of the interaction to do that.

You would be happy to fill out this feedback screen while the video is playing to say that they liked or did not like the video?
EF: Yeah that's okay, absolutely yeah.

I: Again all of the feedback values are set to neutral so if you are very short of time and you cannot fill in anything you can jump this process and the feedback will be returned as neutral for the participants.

There are some other screens that I showed you before about setting up a participant and setting up a group. For example, if one participant is leaving the group you can do it before the session in this section of participant profile section.

EF: So if one member leaves and another member joins you can change this quite easily and it will take into account the details of the new member?

I: That is really all of the questions we wanted to ask you on the concept and the screen designs proposed. Lastly, I just wanted to ask if there is anything you think would be good to see in the system.

EF: To be honest I am quite impressed with what you have come up with. I think it is kind of encompassing a lot of what you would want in a system like this, it doesn't look super technical or difficult to use. No really it would be just a case of trying it out and seeing it in action and seeing how it goes. Because you were saying it would play on a TV size screen so it would be more the practicalities of things and getting that set up. I can't think of anything that I think you should add, or that I think will be a huge problem to use it. I can see it visually in my head I can picture it being used in the settings where I work in anyway. We are always looking for something that will help us to plan groups or have the materials ready for us so we don't have to carry them. I'm always carrying around bags of stuff with me and I'm leaving them in places that I shouldn't be an forgetting them. I mean if there was something that was quite compact and there is usually a TV monitor somewhere on the wards, particularly in the residential units that I work in anyway. So, if I just carried around the iPad and used it that would be a dream.

I: We turn on REMPAD and see what it suggests today, so that would be a different structure to what you are currently doing because you plan a lot of the sessions?

EF: Yeah a lot of our materials would be quite static and in ways a lot of the materials we use would be quite repetitive which isn't always a bad thing but, you know you are sticking to what you know because you have your own work in co-ordinating the group and making sure people participate that, to keep it static is kind of reducing your own workload. Whereas if you had some kind of user interface that would suggest things for you and create material for you and find material for you and still being quite flexible and say actually no I don't want to do that today, that would be great.

I: Have you heard of any similar applications?

EF: Not for reminiscence no I haven't. Now, maybe it is because I haven't looked for any applications or anything for iPad or for reminiscence. I know there are a lot of applications there from a Speech Therapy point of view like therapy tool and communication therapy applications for the iPad but I haven't really looked for an App to be honest so there probably is something out there that I don't know about.

EF: So it is (REMPAD) actually an app that ideally you will actually be able to download to an iPad?

I: Well at the moment the prototype is web based. So you would just open up the browser and go to the webpage. So it would all be web-based. You don't need to download any software or download any app. It is just a webpage that you open. We are running a pilot study in July and then we will be running trials later in the year.

EF: Yeah if you need need any help with that, we have 3 residential units on sight at the other end of the hospital and in general the residents there tend to be quite heavy in terms of their care needs and also in terms of their cognitive impairment. I mean it is a mixed bag really.

I: So this is targeted at the mild-moderate sub-group of people with dementia.

EF: We would have a few mild cognitively impaired but you would have to pick them, handpick them and hand-select them and move from there.

I think we would primarily be going to care homes. They are going to try and align the participants for a group to have the same level of function.

EF: Well if you need any more feedback, you know if you wanted me to try it out with a few people I would be happy to help you as much as I can doing that. That would be great.

I: Thanks very much for that offer your feedback is very valuable to us.

EF: Sure, like I think you are tapping into something, I don't know, you probably have done the research, there probably might be something else out there for reminiscence but, I don't' know. But, it is an area that gets neglected really, particularly when you are working in; I mean my residential units are in an acute care setting. It is kind of not really the right setting for them in ways and something like reminiscence it does get a little neglected really. But, if you had something there that was going to do the work for you and suggest things for you I could see it being used quite a lot.

I: Then obviously the therapist time is better used rather than having to facilitate therapy sessions one on one all the time.

EF: Yeah. Thanks for coming out to me and best of luck with it.

Semi-Structured Interview KD (SSI KD)

KD: Respondent
I: Interviewer

Age: 30 years

Occupation: Senior Speech & Language Therapist in an Age Related Healthcare Day Care Centre and in an age related rehabilitation centre.

Interview Duration: 32mins

I was trying to see what benefits Internet based reminiscence therapy would have with people with cognitive impairments. I did get improvements in mood and quality of life. I sent it to a conference there recently and they analysed it and got back to me to say that it is such a shame you didn't have larger numbers. There was clinical significance. You're not going to improve memory in dementia but, quality of life and mood improved.

It's definitely something that if you could do it as part of a larger research study it would be good.

I: In terms of your computer skills and your experience of reminiscence therapy, first of all, how would you rate your computer skills level?
KD: I would say I'm an average computer user. But, I have never done any computer courses or done any training or anything like that.

I: What is your experience of using iPad or tablet devices?
KD: No I have never used an iPad

I: How often do you use YouTube?
KD: I suppose in work I would use it maybe twice a week for maybe 10 weeks if I was using it for doing a block of therapy with patients. Then we would probably take a break and not do therapy again for 4 weeks. So probably once a week on average. We would do 6-weeks of reminiscence therapy and then take a break for 4 weeks.

I work on loads of different units on site here and some do have internet access and some don't. But, if they all had it I would use it. I would prefer to use it.

I: How many times do you facilitate group therapy reminiscence sessions?
KD: Many, many, many. We would run groups for every Wednesday for the past 2 years. I would say we do 2-3 groups per week so over 150 sessions I would say.

I: What is the usual group size?

Groups. Probably on average we would have about 6, 6-10 people in each group.

I: Do you use any technical resources or tools to assist you in your therapy sessions?
KD: We print stuff off the computer that is what the therapy assistant does lots of. We do a group in the nursing home and they don't have Internet. We print images from good or Irish Times website, you know stories and a caption with them and we would use those to pass around.

Yes we use music. We always start our group with music and exercise. We would usually do a warm up, like stretching arms and legs. To try and get people awake and stimulated and cognitively more with us before we start conversation. We have an exercise CD set to old music to get people started.

I: What was the biggest challenge you met during your experience of running the group reminiscence therapy?

I: Did you have any technical difficulties?
KD: Definitely the Internet is too slow. By the time I find and search for something, because people can bring up something quite quickly in conversation and by the time I find it the conversation has moved on. They have talked about something else and I have forgotten what it is.

I: How easy was it for you to search for appropriate videos for your group to watch?
KD: Yes definitely we would have prepared topics. Which again then, which one of the nice thing about the Internet because it is fast and accessible. But, at the same time you still have to do the work beforehand to prepare. As well because there are so many videos that don't work or aren't good. So you often have to look at some things and then find some videos that are good and then I end up writing down which videos I have found so that I can search for particular videos. Just to be prepared. You know they work and the sound is good… or something like that. But, it is often, you know whenever you trigger memories in people, it brings them into lots of different discussions. Like for example we were talking yesterday about old shops and then someone mentioned Quinnsworth and someone else mentioned another one. But, we can't prepare in advance what they are going to talk about. Which is why the internet is useful.

Interviewer conducts a guided walkthrough of designs for the REMPAD system as with previous interviewees.

KD: Can I ask, is REMPAD just using videos? Or can you see, images, like going into Google and looking up Google images?

I: Currently it is only videos.

KD: And they are all from YouTube?

I: Yes at the moment yes they are.

KD: Because certainly when I was in my previous job YouTube was great but, when I came here my patients are much older and very often there isn't that much stuff available for older people on YouTube to match what they are talking about. There is an RTE Archive that is full of video and we found that useful. RTE Archive has stuff from the 50's.

I: The videos themselves will be curated so if there are older videos needed we will be able to find these and add these in and they will bubble up to the surface.

KD: Is there a way to have a category, like within the category. Say the category is music but, in the description.

I: Yes these two videos are recommended based on the group profile.

KD: So even their age and things like that? You would then get videos from their era?

I: Yes

KD: Perfect

For example if 5 of them like sports the

I: After you select one video and play the full video on the screen you can do this feedback screen. The recommender will improve based on the feedback. You can say about the overall group satisfaction and the effectiveness. You can type in feedback on each participant's mood. What do you think?

KD: It's great yeah. It looks really good. I really like that. To be honest that would be really good for us to have patients profiled and in a computer system as well, I assume we could print that off and store it for ourselves as well because we would have to keep a paper copy.

I like that the user screen is different to the participant screen so that you can be search things while they are watching video so you can be getting prepared for the next thing while they are watching something. That is great.

I:

KD: We find it very difficult to get people to make a choice or even come up with topics. Now whether that is because they have a cognitive impairment and find it difficult to thing of things. And often when you are in conversation they can come up with loads of things. But, at the end of the group we say you know "what would you like to talk about next week?", people often look blank. And maybe they just want to please you and they don't say anything. It is very difficult for getting people to make a choice. Whereas if you had two videos, something more concrete maybe people would make a choice.

I: As you are currently using YouTube do you prepare any topic based on their personal interest or profile?

KD: Usually I like to start with current affairs and then look back. Usually they would read the newspaper everyday so they would have a real interest in current affairs and that would be kind of across the whole group. Say it was the race for president. Who was going to be the new president of Ireland? I might start with a video of some of the candidates for the new one and then get videos of some of the presidents from years ago like say Eamonn deVelara. That's kind of how I plan themes. If something comes up that they are specifically interested in, say one week one man got really interested in old cars so, I would note that down and have something for that the next week. They would be a mix of the two, things that they had mentioned and current affairs looking back that I prepared.

I: Do you think that there is anything in this design suggestion for REMPAD that needs to be improved?

KD: I suppose for me the main thing might be to put in the year. Because, although the men might be interested in sport, I might want videos from say last week's final and I might then want to look back on sport from previous years or decades.

I: So you would like to see things organized along a timeline?

KD: Yes, just sort of 50's, 60's, 70's, 80's, looking back to the decades, yeah that would be great. Just because that would be the kind of thing, yeah we would start more recent and go back. And even for me preparing, if I was going to talk about, if I knew they were into music, I could look some things up and prepare myself. The group is often made up of some people younger and older and slightly older people too so you are making sure you are getting something balanced for everyone.

I: You do a lot of preparation here for your groups. If that was removed, would your task be harder?

KD: I think certainly one of the things I would like is to have less time needed to prepare. The assistant in particular spends a lot of time preparing for groups. So it would be nice if things were cut down and if we didn't need to prepare.

I: So say for example we could develop a favourites list for you so that you could go in and look at that and select the ones you are going to do today and sort through your list?

KD: So I could go in half an hour before and kind of sort them out. Even just somewhere you could store the first couple of topics even, because although you don't need to plan for the full hour session, if you just had a couple of topics that would start you off in the conversation that would be ideal.

I: One very small question? For the people that are in the same group, do they always stay in the same group in the future or does the combination vary?

Oh yes, these would be long term. So we would have mostly long term care units here and a day center. So in the long term care units those residents would be in the same groups for years. That's why I start with current affairs. Because, when you have know and talked to the same group for 2 years you can't draw often on their interests anymore because you can't, you just don't know anymore specifics, but then when you start then they will remember back. We do run one group where they might only, in the rehabilitation group, they might only come once. So it is very transient. But, the majority of groups are long term.

I: That's great because before you start a session you need to select your group and update the members so you your case the groups will probably remain quite stable and not need so much updating.?

I: Do you have any other more general comments or questions?
KD: I suppose if it was an ideal world what I would also like in the system, let's say the Title and the Video Description, what would that look like?

At the time there will be a box telling you why these videos are suggested. Like these videos are suggested because this individual likes sports.

KD: One of the things we would sometimes have to do is that we would have to write up on a page and leave it in the middle of the group to inform them what we are talking about. For some of the clients who have really poor short term memory because they would ask "What is it we are talking about again?" quite constantly and sometimes if somebody else is talking then they can't remember what the original topic was. And there is another lady who has a real difficulty understanding speech so we have to write out for her all the time what we are talking about. So I suppose ideal world I would like to be able to write a line on the screen to remind the participants about what we are talking about. So that the whole group is with us even if they have faded out and got distracted or if they missed some of the video because they were not focused or if their memory wasn't great. I don't know if that would be useful for everyone though, or maybe it is just quite specific to the clients we have here because we have quite specific groups.

I: There is an issue of not all the group members being able to read it? So you wouldn't be able to rely on it all the time. But, I will make a note of this and consider it in the current topic kind of feedback features of the system.

Yeah and it may not be for everyone, so I don't know, there might not be enough people who need this to warrant it.

I: Yeah, so if we just go back to the feedback screen. Here what is asked is Overall Group Satisfaction Number 1, here number 2, this is in relation to the video, and this is number 3, is to mark the video as inappropriate and number 4, is to mark-up let's say this guy really doesn't like the video. Do you think this type of feedback is appropriate and will allow you to articulate the feeling and preferences in the group or do you think sometime kind of alternative would be better?

KD: I think it would be great, definitely, I think it would be really helpful especially because they often want to see the same videos again. So it would kind of make it much quicker. And especially like you might have only 6 people in the group and one week there might be a sickness on the ward or people are in bad form and then you might find you have a group they only want to watch very specific videos. So I think that would be great to have feedback marked up on the videos.

I: So in your opinion do you feel that maps well on how you would perceive the success of the group?

KD: Yes I do.

Thank you very much for your time.

Semi-Structured Interview P (SSI P)

I = Interviewer
P = Respondent

Age: 62years.
Occupation: Therapy assistant and activity coordinator

Service Location: Mix of age related post-stroke rehabilitation and Long-term care facilities for older people with dementia and adults with intellectual disability.

Interview Duration = 24mins

I: In terms of your computer skills and your experience of reminiscence therapy, first of all, how would you rate your computer skills level?
P: Mine would be basic. But anything I need to know the girls (my colleagues) keep me up to date for what I need to know

I: So you use the computer daily?
P: Yes.

I: Have you experience using iPad or tablet PC device?
P: No, no I don't.

I: Are you familiar with what they are?
P: but, one of my sons has one.

I: How often do you use video sharing website, like youtube?
P: Youtube, well I only ever use it when I'm doing groups. But, at home not very often unless someone I know has put something up and I go look it up.

I:And you facilitate reminiscence therapy how often?
P: Yes I do a group mostly, 4 times a week I do a groups, yeah.

I: Are they all group sessions or some of them individual sessions?
P: No group sessions they would be yes.

I: How many people would be in a group session normally?
P: Well there is no normal. Its different units (that I run groups on). Sometimes there would be 8 or 10. Am, there is one group I do would be acute brain injury. Am 3 people come to that every week. So it all depends on, its an open invitation on a unit. So how many people like to come is how many comes. Some weeks you get a lot and sometimes people are feeling ill and you just get 4 or 5 so it just depends on who is around at the time.

I: Is there any difference in facilitating a smaller group over a larger group?
P: With the small group I do a small group on my own. In a larger group, no I would need help. I usually lead the groups and I work alongside a therapist but, I usually lead the groups. I usually prepare and lead the groups and the others will help me. Now not on YouTube (groups using YouTube stimulus) it was KD that led the YouTube group, now I'm trying to get YouTube down to a group, my group, the acute brain injury unit here, it's a younger group so YouTube would be just brilliant for them. You know, I could pick up things for them. So I'm at the moment I am trying to get an internet connection for myself down on that unit.

I: Currently there is no internet?
P: No, no.

I: And they would like to get the internet?

P: They would, they would love YouTube and they are very much aware, they are young people and they want to know what is going on. They want to keep up. I bring over printed articles but they want to push me all the time. It's like me with my children. The YouTube would be absolutely ideal for them.
I: Do you use any other technologies to assist your groups other than YouTube?
P: No, not technology no.

I: Paper based?
P: We have items that we bring over for reminiscence. You know, clothes pegs, and things, little items that are long since forgotten. Smells, lavender, mothballs, polish, we use things like that. For reminiscence groups and that's very good for people with dementia, the memories it brings back.

I: So smells might be very powerful?
P: It all depends on the day really. It all depends on the day, sometimes people can be very with me and sometimes they can be withdrawn.

I: Depends on their mood?
P: Yes

I: So are there lots of challenges in running the groups?
P: Well we have started doing some exercises before, the at the start of the group and music. And that seems to wake everybody up. Even people who haven't got an awful lot of mobility. It is amazing to see a lady who you would see on a chair and think she is a million miles away, and a song comes on, and she is singing away and stays with us for a good length of time into the group. Stays you know, stays with us, that the music seems to bring people alive, bring them back. So we are finding that great tool now at the movement. They all say, even the ladies that are not as advanced with their Alzheimer's say "Oh I really feel alive, I feel awake", you know, with the music. So really what would be great there is to know which music to play, so it would be great if we had YouTube to start that we could have some old scenes or something and music that people could sing along with to start with.

I: Like a turn on button?
P: Yes, yes, yeah and I mean for myself to I've noticed that it gives me great… I feel very enthused with the music. You know, I just feel that it is a great start to a group. Now that's with the reminiscence group. With the younger group, no they are not interested in that. It's different.

I: Does the Reminiscence group especially like to start with the music?
P: They do yeah. And it is their choice. We have given them the choice. We ask them do they want to do this and they all say yes.

I: Have you heard of any other protocols for using multimedia content in Reminiscence?
P: No.

I: I will show you some of the screen designs for the system, the REMPAD system. So before you start each reminiscence session you need to log into the system, there you will see a list of menu options. For example, you can add a new participant. Like here, where you fill in their name, where they lived, when they were born, their occupation and they their social interests and hobbies.

Because this part is very important for the recommender to recommend appropriate videos based on the user profile. So for example, this person particularly likes sport, so more likely the recommender will recommend content related to sport for them.

After you can set up every participant, you can set up a group. The group size may vary from 6-10 people or maybe only 3 people. You can select whom you want in your group. Then the recommender

can find the common interest in the group so based on the group member it can recommend videos of common interest for them as well.

P: Oh yeah, that sounds very good.

I: Then it goes to the main screen. The main screen is on this page. So imagine you have the ipad in your hand. The system will recommend 2 videos to you and you can ask the residents what they would like to see.
If the group don't like any of these options you can choose to show them 2 more videos.

You can use the free text search in this search box, like a topic or title of a video and click search. Then options for your search will return.

P: What sort of clips are they going to be?

I: The system will recommend videos based on peoples personal interest and background. So it will be random but ranked by person and group profile interests.
P: I'm the one that normally prepares groups around here. And I prepare for the YouTube as well. You know, KD would give me subject or something. So this would be wonderful to find relevant clips. So it would just bring them up? Once I clicked into them?

I: Yes, once you click into them, they will be played on the group screen TV/projector and on the iPad.

I: You mentioned what type of video it would bring you? Well, let me show you For example if you wanted to watch videos from music category.
P: Yeah that sounds amazing.

I:
P: This would be all relevant to the person's interest and background and age? Age would be very important.

I: For example if you wanted to see category from culture and history category?
P: The YouTube group we were doing, we had Micheal, from the Arran islands, and he wanted everything from the Aaran Islands. That's wonderful.

P: Can I just (flicks through screen image pages to locate the participant profile page), am, you know with culture, I have found you know it is not au fait today, but for a lot of the ladies and gentlemen I work with religion would have a huge input into their lives and this would be where the memories go on a seasonal basis it would be attached to religion so just for the culture I have found that, because it was huge here, 80-90 years ago. So that would be a marker for a lot of people.

I: What do you think of the idea of the system?
P: I think it is very good now and its user friendly, because as I say now, I'm not a whizz kid on the computer, but, I know I could use that.

I: So you would like to give it a go?
P: yes I would love to give it a try, absolutely, I would be full of enthusiasm because I just, I believe that YouTube is the way to go with all the groups that I am involved with. I just feel now, with the younger people as well, with the younger people, they would just love it! You know the Irish Independent when I'm getting news ready in the morning they have quirky clips, ducks and cats and all sorts. Now you know, they would just love to see those, those sorts of things, just a bit of fun, anything. But they just don't have access, and a… but, I'm working on it, I'm working on it. But, I think it would be great, I think this is marvellous, it would free up an awful lot of my time.

I: Hopefully it will save you time on preparing before each session and it will help you to find more appropriate videos for people?
P: Well I think it would free up a lot of my time. That is only a small section of it. But, I think for the clients themselves it would be wonderful, I mean they love coming to the group as it is and the is going to make it total entertainment. And it is not, this is going to be effortless. I think it will flow very effortless, whereas with the written items, it will just flow on the day. Whereas it won't make any difference where anybody is on the day, mood or health-wise. We can… its all there. Yeah, I think it's great.

I: Is there any particular area you think needs to be improved?
P: I think I would need to use it. If we maybe had it for 6 weeks, give it a trial, see how we are doing. Then maybe I would have more feedback. But, at the moment no. But, it sounds amazing now.

I: Are there any other functions you think we could add into the system?
P: Well now I wouldn't be very good. KD would be better at pointing those things out. But, to me now it sounds great. I'd love to give it a go to try it out, if you need people to trail it. KD will be going on maternity leave for a while, but I'll be here so maybe we can connect.

I: We are organizing trials and the moment and we are hoping to have a pilot trial launched next in the middle of the summer and full trials then after that so, we will follow up with you about this. So that is all for today unless you have any general comments you want to add after our chat?
P: No, no. I mean I think it sounds marvelous.

I: Lastly, have you heard of any other reminiscence therapy systems?
P: No, no I haven't'. I actually, before KD came in here, I was using YouTube already. Because, I read somewhere… now it was people...I seem to get jobs when people are very low moods… for people that come in here after getting strokes, their moods would be very, very low so, they would refuse any therapy. So the therapists come to me and say you know, "so-and-so is in a very low mood, can you make them happy?" And, am I used to think God, what am I going to do? You know, because sometimes the patient would have no speech and they would just refuse to communicate by any means, they would be so low and devastated by what happened them, you know they would be walking along one minute and the next minute everything is gone. I don't know where I read, in some magazine somewhere about YouTube and I thought Oh! I'll give it a go. Now, this was before KD came and I used to bring them in and we would have Gene Kelly singing in the rain and Marlyn Monroe Happy Birthday, you know anything that they liked, it was just amazing how their mood changed, you know and, now, I mean it wasn't a miracle but, it really did help them and they eventually went and had their therapy and they went home and recovered to the best they possibly could. I definitely think that the YouTube helped. It gave them that space in the world where they could be happy and forget about the reality of their life. So I'm a great advocate for YouTube because when, KD came in I was just starting and then she was interested as well so it was great the two of us working together, so I'm a great believer in YouTube for everything around here.

I: Well hopefully we will bring you the trial system in the summer. Thank you for your time and your feedback is very helpful. We are really grateful and thank you for sitting down with us.

Pre-Design Interview AE

AE: Respondent
I: Interviewer

Age: 20 years

Occupation: 3rd year Speech & Language Therapy Student on placement in an Age Related Healthcare Day Care Centre and in an age related rehabilitation centre.

Interview Duration: 32mins

I: In terms of your computer skills and your experience of reminiscence therapy, first of all, how would you rate your computer skills level?
AE: I would say I am an average user. I use a computer every day

I: What is your experience of using iPad or tablet devices?
AE: None really.

I: How often do you use YouTube?
AE: A couple of times a week

I: How many times do you facilitate group therapy reminiscence sessions?
AE: I think I have run about 12 group therapy sessions for people

I: What is the usual group size?
AE: about 6-8 people in a group

I: Do you use any technical resources or tools to assist you in your therapy sessions?
AE: Yes, we use YouTube and Google Images and RTE Archives

I: Did you find that the participants liked to see the videos?
AE: Yes, it was difficult from the point of view that a lot of them had visual problems or hearing problems so we had to have things quite loud or have a big screen so it was a lot of moving the group around. If you were hard of hearing we would move people closer to the speakers, if they had visual difficulties you might have to be directly in front of the screen. We found for the Irish population there wasn't a huge amount of videos. If we used Google images we found pictures from their childhood or pictures of weddings from their era it was really enjoyable for everyone.

I: Did you have any technical difficulties?
AE: Yes the Internet went down one day.

I: How easy was it for you to search for appropriate videos for your group to watch?
AE: Myself and the other student R picked a couple of topics just to have a base to start off with. Maybe like the 60's. We picked a couple of videos but then as the conversation got going people would remember other people and singers that we wouldn't know of and they would suggest can you find anything about this person and we would look it up then. It was hard to do that online because we didn't have the best Internet connection, it wasn't very fast. There could be a few minutes while we were searching that the

conversation kind of stalled because we would be waiting to see if we could find a video or a picture of what they requested.

I: What was the age range in your group?
AE: They were all in their late 80's and early 90's. Our youngest was 80 and the average was 85years I would say.

I: What was the biggest challenge you met during your experience of running the group reminiscence therapy?
AE: I think we found it very hard because we didn't know anything about their background or what happened in their lives. We were trying to look up things from the internet like timelines for what would have been happening and going on in the world during their lifetime so we could prepare for the groups. Mostly, because the people in the group didn't really know anything about each other before they came either so we had to kind of build a rapport between them and with ourselves too.

I: Did the nursing or care staff give you any information or profiles about the older people and their life story and interests?
AE: Not really no.

I: Next, I would like to show you some of the designs for the system, the REMPAD system. So before you start each reminiscence session you need to log into the system, there you will see a list of menu options. For example, you can add a new participant. Like here, where you fill in their name, where they lived, when they were born, their occupation and they their social interests and hobbies.

Because this part is very important for the recommender to recommend appropriate videos based on their….

AE: Based on their profiles?

I: Yes based on their profile. So for example, this person particularly likes sport, so more likely the recommender will recommend content related to sport for them.

After you can set up every participant, you can set up a group. The group size may vary from 6-10 people or maybe only 3 people. You can select whom you want in your group. Then the recommender can find the common interest in the group so based on the group member it can recommend videos of common interest for them as well.

Then it goes to the main screen. The main screen is on this page. So imagine you have the iPad in your hand. The system will recommend 2 videos to you and you can ask the residents what they would like to see. If the group don't like any of these options you can choose to show them 2 more videos.

AE: Okay

You can use the free text search in this search box, like a topic or title of a video and click search. Then options for your search will return.

AE: Okay

I: The system will recommend videos based on peoples personal interest and background. So it will be random but ranked by person and group profile interests.

AE: Okay

I: Yes, once you click into them, they will be played on the group screen TV/projector and on the iPad.

AE: Okay

I: If after looking at what is recommended there is noting of interest for people you can search for something by searching in the search box.

AE: Okay

I: Also there is overall group satisfaction, you can put a score on this and also, Effectiveness of the recommender system, this is about the recommender to feedback how good it was at recommending a video.

AE: And would that feedback have to be done straight after watching the video? Or can I go back and do it straight after the section.

I: Which version of these screen designs do you think is more user friendly for you? Do you like the option of selecting categories for example, music or would you prefer to use the function where you switch on multiple categories and do the search for everything?
AE: I think with the category selection. Because you can be more specific, because you could keep clicking show me two more videos and still not get a music video if that is what you wanted. I think it would make the searching quicker or more efficient if you could select say music or history.
I: Yes I see what you mean, the first design is completely build on the idea of a recommender system and it can recommend any topic or category randomly.

I: So comparing single category selection with multiple category selections, which one do you prefer?
AE: Am, I'm not really sure which. You could select multiple categories? It might be easier if you just picked one category.

I: Then after you select your video to watch it is displayed on the full screen and while the participants watch it you can fill in some feedback on the selection; overall group satisfaction, effectiveness of the video recommended.
AE: Yes
I: This process is also very important as it improves the recommendations that are made for the group based on this feedback.
AE: Okay, I understand
I: If you think that the video is too short for example, just 1min and you don't get to enter feedback then you can skip this as if you don't enter feedback then the value returned will be set to neutral for the feedback.

I: Is there any other feedback you would like to add in here?
AE: Maybe capturing feedback on the quality of the video. Say the video is fuzzy or the audio quality is poor. Maybe if the REMPAD knows if the quality of the video isn't good then it won't come up again.

I: So rather than a scale what about something like a flag? Would that work?
AE: Yes, that would be good. Just so that you could tick a box that it wouldn't come back in a search again.

I: These are just some mock-up categories for you to look through, can you think of any other categories that would be useful to put here other than general categories?
AE: Perhaps, life events. Because, talking about weddings or their children, was very useful for people. So if Confirmations or Christenings or that sort of thing divided it. Or a timeline, so that you would know that the video was from the 40's or the 50's or something like that.

I: Do you have any comments on the overall REMPAD system?
AE: It looks really easy to use. Which is handy because I'm not very technical. But, is there a kind of save a session function in it? Say I have a group on a Monday or a group on a Friday and if they are similar groups then I could use the same material?

I: You can save a group as well, for example, when updating existing group function this will bring you into a page where all of your groups are stored and you can add and update participants here.
AE: Oh okay, when, we didn't actually do it, but you know on YouTube you can save clips to your own account. We were thinking it would be useful for families if they could have access to some of the content we use, because their family member might not remember what they had watched by the time they got home. But, if we could tell them an easy way to access the links then they use them themselves at home to talk about it. Just a way of notifying families what they were interested in.

I: So it would be a way of notifying families of what they are interested in?
AE: Yes, so that maybe if there were grandchildren who know how to use the Internet. One gentleman in my group was fascinated by the laptop, he had used one once before to pay his road tax and he was fascinated by it, he pretty much thought that that was all you could use a laptop for. So that the grandchildren could get to know their grandparents better by watching videos with them. And it would be a conversation starter as well. Also just, for information I don't know if this would be relevant or not but, just say a lot of the groups would be run by SLT or set up by the therapist and then run by the care assistant. Would there be anywhere where you can put in baseline assessment results because you know we need to prove the efficacy of everything we are doing.

I: Well when we run the trials we will be doing that but, outside the context of the system, so before we run the trials we will do this sort of…
AE: Kind of battery of tests.
I: Yes, and then the trial will run for six weeks and then we will take the measures again afterwards.

AE: It might just be useful to have just the Mini-Mental State Exam Score included in the system, just a really quick screen of someone's cognitive level. Just because sometimes people might say oh, I thought they were a much higher level than that or that they seem quite confused today.

I: From your experience is that score generally documented for people?
AE: Well the MMSE can be done by anybody so it is useful to use as a screen to have on someone on record so people can be come aware of the levels of everyone in the group. I'm thinking beyond the trial phase.

I: Overall this system has been designed for interaction with the mild to moderate cognitive impairment range. But, that is very good feedback to consider for inclusion in the final version of the system for moving beyond a trial phase.

I: Is there anything else you would like to see in your ideal system
AE: Can you access pictures as opposed to just only videos, if say, the REMPAD searches and can't find any videos for whatever it is you want to look up so that it would recommend pictures then instead.

I: In the long-term this is something we could look at.

AE: Does it pull the video content off any website that has videos.

I: In this stage of the development of the system we would be looking solely at YouTube. Having said that, the content we are using isn't all of what is on YouTube, it is a subset of YouTube. So that we can mitigate a lot of the problems with poor quality, or inappropriate content. We are hoping to filter out that stuff by using manual intervention so that we can create an end list of thousands of clips that are good quality so that we can use.

AE: It is kind of useful; I wish we had it when we were doing this before Christmas.

That is why

AE: In terms of set up, is it easy to do to connect the iPad to the screen. Is it easy enough to set it up, like for someone like me?

> ***I: Yes it is and in launching the trial phase we will have guys on site to assist with any technical difficulties.***

AE: So is it like an App really? It is not a new device, it is just something you use on an iPad.

> ***I: Yes it is just like using a website really. So you don't have to download any software or any apps or anything like that. Its just like any other website that you would log into with your own details.***

AE: Will it be possible to recommend videos or topics to other therapists, or to other groups? Like for example, if you had a good experience in a group using certain videos that you could share that with other people rather than just working in isolation.

> ***I: Yes it would, how would you like to see that working?***
>
> > AE: Kind of like a forum or a board that you could just put a comment on like "found a great clip, maybe others might be interested in this". The therapist might not have come up with the idea, but the therapist might be stuck for ideas. Because, some groups are better than others for guiding their own sessions and that they want to talk about and they kind of come up with lots of stuff but, other groups are different in that you kind of have to lead it and it can be very difficult because you don't know their history.

I: Maybe if you find that they particularly like a video you can mark it as a favourite so that other therapists when they log into the system they can see a list of favourite videos. So kind of like adding a star to it to mark it.

AE: Yes, because obviously the profiles would need to stay private like you couldn't just announce on a public board "we have group of 65 year olds who are watching this" but, just a board that you could pin videos that you found useful as a suggestion to other, like suggested videos.

I: Yes, okay, but, the existing videos in the REMPAD system are suggested videos. The video suggestions are based on people's profiles, the participants but also, based on the feedback from videos that were previously watched by people and rated and that is kind of how the recommender system works.

AE: So that the feedback that you get from my group is used in your group and in R's group then? Oh okay I wasn't really getting that.

> ***I: Yes, so the system knows what videos are more likely to be hits with people so, the recommender system works out what videos it thinks are best for people to watch based on their feedback.***

AE: Okay, well I can't think of anything else to ask then.

I: That's no problem. Thank you very much for your time. Your feedback has been very helpful. You have given us loads to think about and work on. Thank you.

Semi-Structured Interview JD (SSI JD)

I = Interviewer
JD = Respondent

Interview Duration = 38mins

I: How would you rate your computer skill level?
Am I'd say somewhere between average user and above average user. I would know a little bit from college. I would have experience using a tablet also for assessments for using with communication aids with patients on the wards at times. We would use some and probably a bit more. We don't have an iPad at the moment but, we are hoping to get one soon. So now it is just whenever people come in to be assessed. Other departments bring in their own iPads.

I: How often do you use video sharing website YouTube at work?
We don't use it at work at the minute as it is being blocked, so I couldn't, I couldn't get around it.

I: Is that a problem for you in running a reminiscence session?

Yeah, Yeah, It is a bit of a problem. I run a few reminiscence groups and just you can't get any video clips at all. I haven't been able to get any so far. I can get some audio clips and things like that but I have not been able to get any video clips. We haven't been able to get any access to it.

Even trying to get pictures. Picture Google images are blocked again. We have managed to get around that but,

Although, Tallaght hospital use it a lot so I'm not sure how they have managed that.

Some of the people we have talked to have got exemptions because they use internet materials so the IT department treat them differently

I know we have got exemptions for Google images and pictures and stuff like that.

You said you facilitated reminiscence therapy before? How often? How many times?
Usually I run a group for about 10 or 15 weeks and I have run maybe 3 or4 of them. So maybe I do about 2 a year, that type of thing.

What is the size of the group?
It does vary, I suppose there are 2 residential units on the Hospital campus so we kind of like to include as many people as possible so it could varies between 4 to 10 but, if there was more than 5 there would usually be another person with me so, another staff nurse or activities co-ordinator or student nurse or more people with me, more co-ordinators…

So if less than 5 people would you be happy to do this on your own?

Yeah depending on the level. If it was patients with more advance dementia. But, if it was 5 sort of mild to moderate I would be happy with that.

Usually we get people with some assistance.

Do you use any technical tools?
I use audio clips so I have downloaded a lot of stuff from MP3 and transferred it to just my own account so I have used that.

You said multimedia, YouTube is blocked so you can't use any multi-media content during any of these sessions?
I've used some DVDs and clips from DVDs.

Do you think that works well, the DVDs?
Yeah I think it does although for the reminiscence group I think it is better to just have shorter clips. Because, if it is like a full film it can be quite long. But, if it is just a short clip you can have conversation around that.

What is the biggest challenge running reminiscence therapy?
I think probably trying to facilitate people with different levels. So some people might be quite able and maybe want to talk quite a lot whereas others might need quite a lot of support.

So you need to take care of each of them to make them all satisfied?
Yeah, yeah definitely

Who would suggest the topic?
I would usually have a session plan for each group. Because I would have materials based on that plan. So usually I would have a topic so say something like childhood or work but, if it went off topic then we would go with that. But, I suppose the thing about it is when you are preparing it and you've got objects, you need to use the objects because you might not necessarily have objects for what the topic then moves on to so, it would be guided by myself yeah.

Would you see it as important to be able to prepare beforehand?
Yeah, yeah, like I suppose ideally if you could prepare for where the topic might go as well and have objects related to that, it would be quite useful. So yeah it is very important to have enough stimulus to work with.

Have you heard of YouTube reminiscence therapy?
Yes.

All of this would run on an iPad interface. First you log into the system.
This part is really important for the recommender to suggest appropriate content.
This screen shot is just about add a new group.
Here is the main screen, when we start a session the recommenders will suggest 2 videos to you. You can choose from these 4 videos and you can do this a number of times.
The videos that come up are they related to the personal preferences of the people.
Yeah, yeah,
I think this one would be quite good, I suppose if there was no plan for the group.
I would have topics generally for the group. But, if I could click on music as well.

I: That is the basic interface of the REMPAD system. Is there any function you think you would like to add into the system?

I DON'T think so, this bit is good as it will keep a log of what people like and are interested in.
I suppose with reminiscence it is a lot sometimes going through a person's life history.
So if the categories kind of when that way it would be good.

End: 18:00

Semi-Structured Interview (SSI AC)

I = Interviewer
AC = Respondent

Age = 30years
Occupation = Speech & Language Therapist, Age Related Healthcare
Interview Duration = 30mins

I: In terms of your computer skills and your experience of reminiscence therapy, first of all, how would you rate your computer skills level?
AC: Yes, but, if any blip goes wrong with the computer I wouldn't know how to fix it. Minimal.

I: What is your experience of using iPad or tablet devices?
Minimal, like my dad has one and I've messed around on it. But, just doing what I know how to do but, I haven't used it that much.

I: How often do you use YouTube?
AC: I probably look stuff up myself on it maybe, once or twice a week. But, when using it for reminiscence therapy then much more. But, personally only once or twice per week.

I: How many times do you facilitate YouTube reminiscence sessions?
AC: I was doing it once a week kind of for a block. We kind of changed the way we ran it so I'd say in total I have probably run it about 30 times maybe.

I: What is the usual group size?
AC: There was between 3 and 6 people.

I: Do you facilitate these groups alone?
AC: Yes, yes I would. Occasionally I would have a student observing and they would help by maybe sitting beside someone who was hard of hearing, but, mostly I facilitate them by myself.

I: Do you use any technical resources or tools to assist you in your therapy sessions like YouTube or the Internet during your therapy session? Or is it all paper-based?
AC: I probably, normally I would use paper-based but if that wasn't working or if there was some issue then I would probably go to the internet. But, I would probably go to paper-based first.

I: Do the participants prefer more multi-media content or paper-based?
AC: Oh do you mean for the group or for my regular speech therapy sessions?

I: For the group reminiscence mostly but, either?
AC: Well I would normally for the YouTube group I would always use the YouTube and the computer for that. I have had a few people that I have been seeing myself, that for whatever reason, for example one gentleman found it hard to see the paper so then I thought I would use YouTube and the computer with him. So I would have used occasionally with other people for other reasons but I would probably feel more comfortable with paper just because it is there and I know what it is.

I: Do you run separate reminiscence groups so, like Internet based and paper based group?
AC: No, no I just run the one group. Just the one internet YouTube group. The other people I work with are more on a 1:1 level.

I: What was the biggest challenge during group reminiscence therapy?

AC: Just probably trying to find the clip, see if it was relevant whilst trying to support everybody to keep the conversation going. So I was trying to do that and Trying to guess what the content might be, but, just trying to do it seamlessly while trying to support others. But, you could end up having a moment's silence where you are saying, "I'm just looking at something here" and they would just sitting there waiting.

I: Normally do you prepare a session?
AC: Yes, but I found that when I do that, it means that I am dictating what is in the group. So, when we were running a group there was a while where we alternated weeks running the group so I did a week then another person did the next week and then it was back to me again. But, I found that rather difficult because it was easier when I did a run of 3 or 4 weeks because I got to know oh Bob likes football so chances are if I can't find anything else I'd have a football clip set aside so that can spur some conversation. So I got to know the people a little bit better. Definitely it was a huge challenge, I would try and prepare stuff but, that takes away from trying to support spontaneous conversation and support people with the suggestions they come up with and when I looked stuff up beforehand I kind of ruled that out because I decided what they watched.

I: Different people have different preferences, you want to keep the balance?
AC: Yes, and as you say you are trying to include people and not put them on the spot so you are trying to bring them in, and it's just yeah, it was hard, enjoyable but hard.

I: Any other technical problems you had?
AC: Yes internet speed, internet going down, sometimes the internet would be blocked and you would have to ring IT to unblock it and then you mightn't be able to do it right away and then you don't know if you should cancel the group or try and go ahead so, yeah it was tough.

I: Next, I would like to show you some of the designs for the system, the REMPAD system. So before you start each reminiscence session you need to log into the system, there you will see a list of menu options. For example, you can add a new participant. Like here, where you fill in their name, where they lived, when they were born, their occupation and they their social interests and hobbies.

AC: Oh yeah, that sounds very good.

I: Then it goes to the main screen. The main screen is on this page. So imagine you have the iPad in your hand. The system will recommend 2 videos to you and you can ask the residents what they would like to see. If the group don't like any of these options you can choose to show them 2 more videos.

AC: Okay

You can use the free text search in this search box, like a topic or title of a video and click search. Then options for your search will return.

AC: Okay

I: The system will recommend videos based on peoples personal interest and background. So it will be random but ranked by person and group profile interests.

AC: Okay

I: Yes, once you click into them, they will be played on the group screen TV/projector and on the iPad.

AC: Okay

I: Also there is overall group satisfaction, you can put a score on this and also, Effectiveness of the recommender system, this is about the recommender to feedback how good it was at recommending a video.

AC: And would that feedback have to be done straight after watching the video? Or can I go back and do it straight after the section.

I: It is best do it either during or after watching the video because, it will impact what recommendations are made.

AC: Oh, okay, I understand, it will impact then even during the session to make better recommendations.

I: Which version of these screen designs do you think is more user friendly to you?

AC: I would have a feeling that I would probably use this one. I think with categories I would probably just keep them all on but just enter a search word. I'm just thinking of some of the clips that I have watched, they would be just about people, but also music, so I suppose it would depend on how they were categorized but, some of the videos might cover both categories, so I think I would use a search word quicker than I would use a category. So I don't know if it would be worth it for me, to use the categories.

I: So would you prefer to rely on the recommender or just have a search box?
AC: Well I suppose it depends. I mean the way we ran the group here, just the approach I took for it was, that I would go into the session and I would always have the first clip I would probably direct the first clip and I would try and take something that was topical, so like, if the Rose of Tralee was on that that week then we might do that. So I would take a clip maybe from current news and then from that the people might tell me "oh I remember dresses like that back in the time". So I would try to link the reminiscence to something that was happening to the here and now that maybe the people weren't aware of? So probably what would happen would be that I would enter a search word, bring up a clip. And I would probably judge form that where we were going to go with it and use a search word but, that is just because that is what I've been used but, I don't know if the suggestions were good or were related then I might adapt and go that way but, that is just how I think I would go into it now.

I: The main point of the recommender is to recommend videos relevant to participant's background and their interests. So most likely the video that appears here as recommended because it links to their hometown, their age range or their interests.

AC: Well because I never knew who was going to turn up in the group. I kind of always had my safety think of "Oh Obama visited this week" so I would try to go with that. And then as the session when on I would try to get a sense of where they were from and who they are because I might not have met them before. They could be patients from other people's caseload and they (the other therapist) said, "Oh this person would be good for the group" so we would bring them down (to the group room) if they are feeling able, so I might never have met them. But as I got to know them I got to know their background more. But I suppose when I first went into it I probably would have picked something that was happening current and try to relate that to what they came back with.

I: Is the goal to try and find something current and find a pathway back into the past or is the current item useful in itself?
AC: I don't know. The way I felt about it is that a lot of people might not know what is happening in the here and now and they are rated based on that. And that is what all the assessments look at, their orientation and their awareness of the here and now. And it kind of ignores all the knowledge, they have all this background knowledge and they can probably tell you everything from their childhood. So I kind of felt it was a nice way of maybe me bringing something to it, like this is the here and now. And they were always interested, you know if something was happening in politics, they would say "oh really and is he here now" you know, they had some knowledge, but they might not remember the details of the here and now but, they knew what I was talking about, and then they were able to give me something back like, "oh well back when I was a child this happened" and it was kind of like an exchange of information. So that is just the way I kind of felt about it, so that is why I did it that way. Plus, I suppose it worked once or twice so I thought right I'll do that. I'm not sure if the others kind of did it that way that is just what started working for me.

I: No you are not the first person to tell us that, for example another story we heard what that during the presidential election they showed Michael D. Higgins campaign video and then they showed clips from Eamonn deVelara.
AC: I also feel that it kind of takes some of the pressure off. A lot of the time these people are being questioned, what day is it? What date is it? They are being put on the spot with questions. Whereas if I start to open things with here it is, here is an introduction, that kind of triggers things rather than putting them on the spot and saying what is this? Have you seen this before? Who is in it? So it is just kind of a gentle introduction and you can kind of see what people want to contribute. If they have knowledge on a topic then they are free to open up on it but they are not put on the spot to try and select a clip or select a topic or pull something themselves.

I: You said there that when you were looking at the feedback screen you wanted to know if you could come back later to fill out the feedback. Is that because you thought you might not have the time to give the attention to it or you just weren't comfortable giving that feedback?
AC: I might get used to it but I know when I was running the group before I was kind of under pressure to be thinking of the next clip. What we were supposed to do was save the clips as they were watched, during the session but, I never had the free time. I used to always stop and do it after the session. Because, I felt I was trying to keep a conversation going and I didn't want to be trying to do technical stuff and trying to figure it out during the session.

I: Going back to the feedback screen design, do you think if it was simpler then it would that make it easier?
AC: No I think that is very simple.

I: So its not actually a complexity in the interface or is it just the task itself?
No, it's more that I haven't tried it so I don't know. I could probably multi-task and do the two things at the same time but, my past experience would be that just need to focus on the group and trying to keep facilitating it.

I: So at this point in time you would be concerned about what the next video is going to be?
AC: Yeah just to try and keep the flow and trying to keep up with the people. Because, I suppose conversations move really quickly so you are trying to catch what Mary has said and look up something for that really quickly to acknowledge this before John takes over and says something to move on to another topic. So you might be trying to include the quieter person who might only say one thing for the whole session, you kind of like to capitalize on that rather than maybe John who keeps talking a lot because he has a lot more ability. I would be conscious of just trying to focus on the people and not to miss anything to give them all an opportunity.

I: After you fill out the feedback you will then see what the next two recommendations for your groups are. So if you feel you like to know what is coming up so you can prepare then we can incorporate that into the system design.
AC: I suppose personally I would always feel that I would like to know what is coming next before the clip they are watching ends. And sometimes with clips the person might loose interest or they might have had enough so you might actually cut it off in between. So if it was possible, it might be nice for me to be thinking about the next clip even while that one was still playing. Or to look up, say maybe Mary said something about O'Connell street, I wonder if there is anything we can find to watch next or even quickly while they are still on the original clip, so it might be nice to look something up to have that ready. But, we weren't able to do that before so it does still go okay when you are not able to do that.
I: So if it was a case that you would like half the screen or the full screen as a type of a feedback interface.
Yes, then at that point I might be able to relax and say oh we can watch the rest of this clip as I have the next one lined up. Oh they are really enjoying this and rate them. But, I suppose my immediate concern would nearly be oh what is coming next. I tend to go with the group and then at the end look back and evaluate what was a good clip or not.

I: Would you agree in some cases it might be good to display choices to the group and then in other groups it might be better for the facilitator to step in and say oh this might be good for the group.
AC: Possibly, I suppose it might depend on how able all the participants were and it is obviously going to change the dynamics. But, I know from the groups that I ran whenever they were offered a choice, people just kind of say, "Oh Grand". They don't tend to have strong feelings when they just see the first image of the clip. If I have given them a choice of we can watch a clip about this or this. In my experience from observing some groups it just sort of falls to me to decide. Maybe in a different group in a different setting things might be different but, in my experience a lot of the time it is kind of me making the call.

I: Is there anything else that you would like to say, on a general level about reminiscence or materials or systems to support it or ideas for what would be good in an ideal world?

No I mean I would never have thought of it being this way but, it seems excellent. Just even with our group with the reminiscence therapy it is great for even families to be able to see what the person has done because a lot of the time they are being judged by how they are right here right now and how they are coping and they do much better kind of… they have a lot more knowledge and a lot more to share about their past. So I think, it is great, it looks great, especially, if families got on board. It would be excellent.

I: We will pilot text in July and hopefully deploy further tests across a number of homes in September and October to do further tests on it.

AC: That is fantastic, because, I know myself from my own grandparents from their time in nursing homes, if there was something like this in a nursing homes that was available for families to use, because sometimes you are like well what do we do now, we have come in to visit and sometimes it can all be a bit chaotic in there. So, I think it is fantastic, brilliant.

I: Thank you, your feedback has been very valuable for us, genuinely it has, so thank you very much.

Pre-Design Interview FH

FH: Respondent
I: Interviewer

Age: 35 years

Occupation: Senior Speech & Language Therapist in Neurology Service.

Interview Duration: 32mins

I: In terms of your computer skills and your experience of reminiscence therapy, first of all, how would you rate your computer skills level?
FH: Average. Unfortunately, yes.

I: What is your experience of using iPad or tablet devices?
FH: We just got one here at work and I have just used it with a couple of clients here at the moment so it is kind of early days.

I: How often do you use video sharing websites like YouTube?
FH:. I might use it once a week.

I: How many times do you facilitate group therapy reminiscence sessions?

FH: Well I have observed the group sessions that the therapists in age related healthcare here have run. But, what I'm actually doing is more one to one sessions with individual clients. I don't, I'm not involved in age related caseload work so I wouldn't have a big group like that. It is just on a one to one basis and it tends to be people that are over the acute stage of the illness or reason why they were admitted to hospital. I work in neurology service, so the people that I would do reminiscence with, they may be waiting for long term care and they would need that kind of stimulation. So really, I wouldn't have the facilities to set up a group like my other colleagues have access to more clients with dementia to pull together for a group. But, my caseload is a neurology caseload and I have clients with dementia in that caseload. For instance with clients with Parkinson's disease with dementia as well. But, clients with dementia would not be a huge portion of my client group so my work with reminiscence would really be more on a 1:1 basis rather than a group.

I: Do you use any multimedia content in your therapy sessions?
FH: Yeah well I've used YouTube that would be the main one and some Apps and the good old pictures downloaded from Google.

I: Did you have any technical difficulties from your experience of running digital reminiscence therapy sessions?
FH: Well I suppose from just a work point of view YouTube went off the computers because we got new computers and we didn't have access to it. So the access isn't always there. It isn't definite all the time, access can be shut down. It seems to be up and running now again and it is fine. And sometimes when you go in and clips you might have used before and they were gone. You know that was a good one and you go into YouTube and it might be gone, something that they might have enjoyed from previously. That would be the two aspects and obviously when you are only doing individual one to one sessions there is only two of you so you are very dependent on having good background information on the client to start with if they are not able to produce a lot of the information themselves. So having good background knowledge meant having good meetings with the family as well. I suppose with the client that I am doing this with at the moment I facilitate or lead a little bit more because his dementia is more advanced so in terms of the cognitive difficulties there than maybe the participants that are in the groups that the other therapists in

age related healthcare are running here. I think that that is an issue when you get to advanced cognitive levels. You kind of run out of ideas. So something that would direct you to other things would be useful.

PART II

I: Next, I would like to show you some of the designs for the system, the REMPAD system. So before you start each reminiscence session, you need to log into the system, there you will see a list of menu options. For example, you can add a new participant, like here, where you fill in their name, sex, where they lived, when they were born, their occupation and they their social interests and hobbies and other information you think which is valuable. Because this part is very important for the recommender to recommend appropriate videos that are more likely to be interesting to the participants. Then after you have entered information for all of the individual participants you can create a group and if you are running a group session then the system can recommend videos for the group.

FH: So you can get suggestions just based on this information.

I: Yes based on the participant profile. So the more information you enter about the participants the more recommendations will be made that are relevant to them. After you can set up your participants, you can set up a group. The group size may vary from 6-10 people or maybe only 3 people. You can select whom you want in your group. Then the recommender can find the common interest in the group so based on the group member it can recommend videos of common interest for them as well.

Then it goes to the main screen. The main screen is on this page. So imagine you have the iPad in your hand. The system will recommend 2 videos to you and you can ask the residents what they would like to see. When you choose one you click the show button and the video will be displayed on the group TV screen. If the group don't like any of these options you can choose to show them 2 more videos or help them to choose the video.

FH: okay.

I: You can use the free text search in this search box, like a topic or title of a video and click search. Then options for your search will return.

FH: okay, yeah.

I: Which version of these screen designs do you think is more user friendly for you? Do you like the option of selecting categories for example, music or would you prefer to use the function where you switch on multiple categories and do the search for everything?

FH: So sorry, what two videos appear.

I: They are automatically recommended by the recommender.

FH: and then these categories relate back to the videos?

I: Yes you can use this to control what videos can appear here. Like a filter, to filter out the categories you don't want to include like say sport or gardening for example.

FH: Okay.

I: Next while the participants are watching the video selected you can input this feedback form it is very important to the system to improve the accuracy of future recommendations by collecting information from the participants.
FH: Okay.

I: Again if you find you don't have enough time to fill in this section, all of the feedback values are set to neutral so if you are very short of time and you cannot fill in anything you can jump this process and the feedback will be returned as neutral for the participants.

FH: I think the category selection I suppose it maybe just allows a bit more specificity in the searching and the end product you might get also. I don't know whether thought needs to be given to what the different category options are just because you don't have any category options listed there at the moment, there is a gap there jumping out at me. That is a nice way to filter it down a little bit more and by knowing a little bit about your group as well you might be able to say they are all really into music so you could make it a little bit more so just to make it more specific I like the category option.

I: So the recommendations of the system would take into account people's profiles.

FH: Okay, yeah, a little bit of extra guidance, and advanced search. I still, I do think it would be a more helpful option to have perhaps.

I: What other functions do you think might be good to include in a design system?

FH: In this REMPAD or in general? Oh God, let me think now. I feel on the spot. I wouldn't be into computers so I just think everything sounds good.

I: Do you think the screen designs are easy to follow and understand?
I think the screens are easy to understand and I think having two options is important. Because, I think with people with dementia as well, layout and business are important to control because they can be easily distracted. Also, it is important to think about background colours to get their attention. So having two videos on display for selection is sufficient rather than having too much. Its great the fact that you have an iPad to control, so they don't have to see you searching through all these different screens, you know coming and going and you know the way you feel like telling them "just look away now until I have it sorted and then you can look back at the screen!". I think that is a great advantage of REMPAD.

I: Yes it will separate what you as facilitator will see on the screen versus the participant. So you will have more controls and functions on the iPad screen versus the participants TV screen.

FH: I think as well maybe just to consider around font size and the amount of information and use of bold or capitals as well would probably be important.

Not going overboard with too much information as well.

I: This title and video description is more used for the facilitator and not the participant.

FH: Yes I suppose the idea is that it is the visual image that really is going to be most engaging for the participant.

I: We want to include some textual information to reinforce the ideas so they wouldn't be reeling solely on the written text on the screen. What really struck me from observing other sessions with people with dementia was that some people could read subtitles, descriptions and titles without too much trouble at all.

FH: I think it is important to have it because like you said it is all information so for people that can read it and understand it as this will contribute to the whole communication effect. But, we need to ensure that this information is not too complex which I don't imagine it will be. I suppose the main aim is that it's the visual information that will be the main avenue that is going to avenue in or the point of the reminiscence part of this.

I: What do you think of the feedback procedure, do you think you will be able to handle this during the live session while the video is playing?

FH: I think yeah, I think I could. I suppose the idea is that we will be rating this person is enjoying it or they are not enjoying it so much or they are happy or…

I: In this part (feedback box no.1) we are rating is this clip working for the group or not how the group is doing, here (feedback box no.2) is some feedback to do with the video, this is a good video or it is not a good video. And then here (feedback box no.3) the case will be if Mary or Joe really likes politics then this will get marked higher for the group profile.

FH: Just having to click on it. I think the three aspects are really well covered in terms of getting a feel for how the video is working. Well then it seems that this feedback is of most value to the system and how the system works rather than measuring the outcomes and impact of the video watching experience on the participants. So I think if it is just giving feedback on the video suitability then that is very achievable within the context.

I: We tried to keep the feedback really simple and easy to use to keep the workload down.

FH: Yes, because I suppose at the same time we will be trying to observe communication as well and think about what to watch next.

FH: And just, I'm probably being really dim now but, when you have all the information on people there what kind of criteria or aspects to you look at in terms of coming up with the selection for the two videos? You know when you have all that information together.

I: So from the start when you click "Start Session", we specify their interests from a preselected list maybe 10-20 options and then after that it is about the feedback the facilitator inputs into the system about what is working and not working so the system will then say well "what other videos are like these videos?". So in the background the system has a lot of information about these videos what date they are from and it has textual descriptions, music or film etc. REMPAD can actually assess the similarity of videos so if you give it feedback that "this is a good one" then it will off to try and find more videos similar to that one.

FH: Okay and the access to the history from previous groups you know this is something I watched before and I really liked or it was a favourite. I'm just wondering you now sometimes you might come to a group and some person will actually remember something they saw before you know it could just be a good conversation starter or stimulant to start another session.

I: A way to do that might be in your profile you have a history of what you have watched?

FH: Yeah

I: Another way might be to have a favourites list? So you could star videos.

FH: Yeah, they sound good.

I: So if I had to press you for one of those options.

FH: Am let me think now. And they would both be as easy to do?
I: Yeah

FH: It is all about how quick it can work [laughs]… am probably under "favourites"

I: Sorry sometimes those gun to your head questions get the really gut feeling out.

FH: I'm just wondering let's say, that facilitator running the groups changes. This is all saved under the group favourites? So let's say I ran the group one week and my colleague ran it another week then my colleague would be able to access the favourites list also?

I: Yeah, I don't know, I would have to have a think about that.

FH: Or whether there was some way to save them, even save them under categories or something? I don't know.

I: So you would think that especially tying the clip favourite to the group is quite important. So rather than my favourites as a facilitator it is the groups favourites?

FH: Ideally both. I'm just thinking if the facilitators were changing which they tend to do here between occupational therapy and speech therapy that there is some level of communication trail or history trail. Or that I verbally told my colleague that this was a good one so that she can find it.

I: So how about just another suggestion? Say for example go back to the history idea, you could look up a therapists history or a groups history. We could do that for videos and for facilitators would that be helpful?

FH: I think that would be helpful. Sounds like it would be effective. Anything I suppose that is going to be easy to document and save and will be easy to interchange between people. I suppose I wouldn't be so concerned between groups if a group has its own history. I suppose it is important to track this a little bit as well but just in terms of sharing information between the different facilitators is important I think. I don't know how much communication the facilitators here have amongst themselves after they run their groups; do they sit down and have a chat or do they look up their history on YouTube? I don't know but, yeah just some sort of a trail there. I could be good or it could be too much of an ask?

I: No we need to hear these things. This feedback is really very helpful. Okay there was lots of really go stuff there now. I don't know what else unless you would like to add anything else, even on a more general level about reminiscence or in an ideal system what you would like to see?

FH: I love the idea that we have more avenues now. You know, well I suppose reminiscence used to be… well it is all about the senses and everything, object based. It is great to be able to utilize technology a bit more. And what I like about it as well is that we can instruct families that they can use at home as well. It is nice that we are kind of moving towards that way as well. Would REMPAD be something that would be rolled out for general use?

I: In the short term we are looking at very mild to moderate people with dementia in care homes, residential facilities but the idea would then be to introduce it into hospital and then peoples own home and then as a follow on to be able to allow them to introduce their own personal artefacts and personal image items which I suppose make less sense in a group setting.

FH: Yeah, you have to be very familiar with the group. You might have some commonality around objects and shared video events but things like individual personal pictures can be a bit limited and are not a big group thing unless it was a theme in the group like "Get to Know my Family" session so, yeah it would be great to expand the system to include this feature but, right now in the short term I think it is such a gap in the care home sector. A lot of the care homes do have YouTube and that kind of access and like you said it is not just the SLTs but also the OTs and the activity coordinators that can use it and need to be unskilled more in the use of reminiscence so yeah, I would be very interested to see how it goes now.

I: Thank you very much for your help that is really valuable information you have given us now.
FH: Thank you.

Summary of Semi-structured Interviews on Technology usage for reminiscence

Interviewee	Location	Job Title	Computer Skill	iPad	YouTube	Times
EF	LTC	SLT	Above average	Yes	Personally couple of times a month Professionally once a month	1 video based, many other paper based
KD	LTC	SLT	Average	No	Once a week	100-150
P	LTC	SLT Assistant	Novice user	No	Only for reminiscence preparation Not too often at home	4 times/week
JD	LTC	SLT	Average	Yes	Blocked at hospital	80-90
AC	Acute	SLT	Average	Yes	1-2/week	30
FH	Acute	Senior SLT	Average	Yes	1/week	Just observe
AE	LTC	Student	Average	No	1-2/week	12

Common Comments:

- Internet speed is limited, YouTube blocked from wards.
- User interfaces looks easy to use
- Will to try the system out

EF:

Choosing the recommender page design:

I think probably this one you are going to use a little bit more. Because these are quite straight forward, but you still have some flexibility and specificity in choosing the videos. That one does appeals to me a bit more.

Feedback screen

To be honest, this is very useful even from the therapist's point of view. Because we are always looking for something that can keep track of how well, how satisfied people are with us. Although this helps the system to retrieve videos, it is really helpful for group leader as well.

KD:

RTE Archive

There are lots more older population here. Often there are not YouTube videos to match what they are talking about. There is RTE archive that we found quite useful. It has stuff from 50's

Screen Layout: I'd like that your screen is different from participant's screen. You can search topic while they are watching videos and prepare for the next thing.

JD:

Adding Category by timeline

If the categories can have a timeline of years, that might be very helpful.

Do you think the feedback is a big load to the facilitator?

No. I think it is relatively easy. You probably going to record this on your own notes as well. You keep record of what works well. If that makes some videos come more frequently, that's definitely an advantage.

AC:

Current News

I probably direct the first topic. I take a clip from current news, and then from that I try to link the reminiscences to something that happens now.

Feedback screen

I think it is very simple. I could probably multi-tasking. I just need to focus on the group in order to keep the conversation flow, prepare for the next clip.

Semi-structured Interview (SSI CH)

I = Interviewer
CH = Respondent

Interview Duration = 42mins

I:
CH: Worried if the information had gone through? I don't know if I clicked the end session button. But, when I picked up the iPad again I could see that the screen was blank so I assumed he had done it.

I: How do you feel everyone got along in the group?
CH: We did have 6 people. But, Ted was having one of his sleepy days so he slept for the session. But, I think in future sessions he will probably be okay.

I: As a whole how did you think it went?

CH: I think it was really good. I think because it was so new to them I think they were a bit ah, well a bit like I was when I first saw it, a bit like, Wow! This is fabulous. So the talking wasn't as much as I thought it would because they were so fascinated by what was coming up on the screen. And enjoying the content that came up on the screen, like really enjoying it. So like even when I was asking a few questions they were like "We are listening to this… kind of a thing".

Veronica left half-way through but, she usually leaves most activities. She is, I think she is quite depressed at the moment. Her mood is quite low at the moment but, you know, that is part of the reason why I tried to bring her along. And I was quite surprised that she stayed for as long as she did. She stayed for half of it. She said that she didn't like it and left.

I: Did she talk about her husband during the session?
CH: She was a little bit closed for the session. She kept her eyes shut and anytime I asked her if she would like, does she think she would enjoy this clip.

But that is quite normal. She still participated, she still considered and she stayed for half the group. And even when she left she didn't seem very angry which sometimes she can.

Fr. Len was in awe of it. He just thought it was fabulous. And from when I did his profile this morning. He became very reflective from that point on. And has kind of, that followed through into the group. And, he recalled some difficult memories from his childhood, being at school, and some unpleasant things that had been at school. Even though we weren't talking about school but, we followed on from that then anyway. But, it was a theme running through his sort of memories today. But, I think that was from more of his profile this morning he wanted to, he kept saying that he wanted to add just a little bit more into his profile so that we would understand him and that not everything has always been nice. He wasn't' distressed by it at all really, he just bringing these up to be acknowledged.

But he has been very calm for the whole day. He can get very agitated. He gets very bored but, he has been very relaxed and talking a lot, sitting down and enjoying conversations today. Which is really, really nice because he does experience a lot of frustration. I just think from that group this morning. The group had a very gentle, very relaxed, very calm feel to it. It was actually really nice.

I: So do you think the dynamic of the group was …?

CH: The dynamic was very good. And, there are people in that group they will enjoy each other's company. But, there is often friction between people in that group as well. But, today everyone was like Wow!

One thing that came up was a song by John McCormack. I think it was Stephanie commented that it was nice because it was an original recording they were listening to. And they could tell that it hadn't been touched up or, it sounded like it was like the original version of the song which they loved.

We followed on from that, because they enjoyed it some much, it was a tribute to John McCormack on there, which we found. And they really liked that. We talked about America. And had people visited and… Una Harper, I was just talking to Helena her nurse, she said that her memory and recall is usually very, very poor. Una told me the school that she went to, her memories from her school, memories of her husband and him not being able to fly to America because he had been quite unwell and he was advised not to and he wanted her to go and she wouldn't go. And it was fabulous; she sat and talked for ages about these!

Yeah, it really sparked the conversation. Because I tried to end the session, I said you know we are going to leave it here. Because, I had to take Stephanie away because he had her hair in rollers and she was pulling them out. And I didn't want the hairdressers to have to do it all again. And when I came down they were still sitting and talking in the group and very much engaged.

I: Did you have any challenges running the group today? Especially with having someone leave the group.
CH: She will be invited back again on Friday anyway and I'm sure she will come again and possibly leave but, that's okay.

I: Initially how did you feel when you were about to start the group? Did you feel nervous at the start?
CH: Yeah, I suppose there is always that anticipation isn't that, people have got an expectation when they come to a group and you know obviously being brand new, I was thinking, I was hope it does work and that we get the connection and it did but, that was the only thing. I suppose we are running 2 groups a day here so I don't feel nervous running groups at all.

I: You weren't nervous about REMPAD the system itself and the technology?
CH: No, no, no. I think it is very easy to use.

I: Did you think you had enough opportunity in advance to see how it worked?
CH: Yes definitely.

I: How many clips would you say you watched?
CH: We watched I'd say 4 clips.

I: I think that is a good number, and, how long would you say the group lasted?
CH: I would say the group lasted a half an hour. Officially. It took on its own sort of shape after that.

I: So it became a source of just getting people connected, which is why, having a good group room is important too.
That space is quite nice because they were quite connected and at that time then the rest of the people came from another group that came out, but, we were able to push our chairs back and I sort of sat the chairs of the people who were in the group together so that they sort of moved back but they stayed together so that they had that connection. And then other people were allowed to come in then as well. It was nice.

I think 4 clips is good in terms of attention, what do you think about people's attention? Did you find that you were able to get around the clip and pause or did you wait for it to finish?

CH: I waited until the clip was finished and I think that will change as the group go on. Today was the fascination of allowing people to enjoy the clips. So, I suppose just allowing people to enjoy the clip in full was good. They really seemed to enjoy the experience. I found that really, I then after that tried to link the clips from what they were saying, so when we listened to the John McCormack song that they really liked, then finding something else about John McCormack like the tribute.

Fr. Len was talking about his experiences at school, we found a piece of poetry, that people listened to and then discussed about learning poetry at school.

I: So I would summarise and say that that reflects a lot of topic maintenance. Were you able to maintain the topic?
Yeah I was able to make connections.

No, no it was coming up. I didn't actually put in to look at anything it was just coming up. A lot of the clips that were coming up were kind of related anyway so they just kind of floated up.

I: So I suppose I just wanted to get feedback from the participants experience today and your experience as well. Did you get the sense that people would come back again on Friday?

They all said they would be there again on Friday, apart from Veronica who had already left. But the people who stayed said yeah they definitely would be there again on Friday.

I: Did you consult the members on the name of the group?
No I didn't actually. No it didn't come up.

I: What did you call the group?

CH: Memory Mates.

I: I think it is a lovely name. Sounds really friendly.

I: What about yourself, do you feel that it took extra time from the groups that you run, you know you said you generally run 2 groups a day. Did you find it was more effort over a typical group that you run?

No it was very easy, very easy. We have 3 people working in activities on a Wednesday and the other groups run as normal. No and it will be the same on Friday. There are 3 of us.

I: Do you think it is something that beyond Friday you will be going back to it.

CH: Oh I was showing them, I think it is absolutely brilliant. I think it is brilliant. Yeah, I think it is quite easy.

I: What would you see are the main challenges to continuing to run Memory Mates?

CH: I would think possibly the environment, we would in the long term possibly need to have a room we could do it in.

I: Would you say that is limited at the moment by… just the internet connection… OR the room OR the space OR..?

CH: Just the internet connection.

I: Would you see any challenges as being your time or your availability or…?

CH: Yeah, I think all the challenges would come from us you know, and not the actual group themselves. But, from us, in our time that we could do it. Hopefully, there would be 2 days per week that we will always have 3 people but, you have got leave and sickness.

I: How many people generally participate in your groups?
Mmm… we can have anything from 8 to 25… 30 people coming.

I: How many people would you say is the max. Number to have in a REMPAD group?

CH: I think the 6 people is a really nice group. Because, we could actually speak to every person in the group and it was a nice sort of, physically it was very nice because, six people kind of sit together very well. I sort of had a stool near the television. People were in the right range to be able to have a conversation.

I: I think that is good from all of my experiences of running the group before.

I: What would you say are the main kind of real benefits to having a reminiscence group like this over a reminiscence group other forms of reminiscence you run?

Am, I think having it on the T.V. screen just made it very relaxed. There wasn't distractions of having books or pieces of paper around. There was no real sort of searching for information so people could actually sit in armchairs and relax. We didn't have to have a table. We didn't have to have anything else there. So, I think, that just sort of made people relax and flow nicely into a conversation.

I: In looking at the REMPAD system itself. Were you happy with the material it gave you today?
Yeah, I thought it was. There was a lot on there that we could use and then there was some things that were coming up that… only one or two clips came up that I didn't even consider using. But, the majority of what came up I could.

I: Did you feel that you were able to introduce the clips appropriately with the content and text that came with it?
Am… no there was a lot of things maybe that I didn't know what they were even after I read what they were. Am…

I: So do you think that they could be described a bit better?

CH: A bit better yeah.

I: Would you like more information or just better written information presented differently?

Am… I think just a little bit more information.

I: Do you think it was sufficient to have the choice of 2 clips coming up or would you like to have more options on the page?

No, I think two is good.

I: Do you think they should be broken down into music versus video? Or, just randomly selected?

CH: A random selection is always good.

I: Lets say you really liked a clip would you like to see it again. But, for your next session you will get different recommendations. How do you feel about that?

CH: Yeah it would be nice if you could save some of the clips you have used so maybe you could have like a folder that you could maybe click some of the clips into that you know have been really successful. So you have a file there of like favourites saved.

I: I suppose a lot of that feedback screen, what did you think the main purpose of that screen was?

CH: Am, I didn't know what the purpose of it was because when I went back in I couldn't find a way in to sort of like see what I had clicked in for people. And I think it would be quite useful to be able to look back to see people's reactions to things.

I: In terms of, how did you find the rating scale was on that screen?

CH: Yeah, that was what I found. I think you could gauge people's reactions easily using it. I don't think you need to have anything else there.

I: So to summarise, you would like to be able to access that feedback you put into the system and see what the story is with it and look for a trend?

CH: So after running the six sessions to see if overall people having an enjoyable experience.

I: And that screen at the moment is a screen that gives feedback to the engineers on the performance of the recommendations so that the recommendations can be more intelligently personalize for the group. However, what I am hearing is that you would like to track he progress of your group members on enjoyment, engagement and mood. Would this be something you would find clinically useful and would feel comfortable rating?

CH: Yeah, definitely and I think I would feel happy being able to rate people and it would be really useful for us for future groups. But, also, I think like when you do anything like this you want a record that this has been successful and it is nice to be able to show that you are providing something that is really beneficial for people that are attending.

Yeah, I think that it would be a nice addition.

I: Do you have any other comments that you would like to make?

CH: No like I said I found it very straightforward to use and I think any activity co-ordinator would be able to do so too because obviously we spend so much time with our residents, we know them so well that you know this tool would just slot into a group so easily, it is just so user friendly, and like I keep saying to you it is just such a brilliant idea.

I: That's good to hear

I: It is great to get your feedback as this is the first time that it has gone out to real users. It's very good to get your feedback.

CH: And just taking into account the fascination thing also. So I think after a while I think that the groups will change because will be more familiar with it and there is that whole fascination thing. So like I said maybe the first couple of sessions will be more watching rather than getting the discussion going because of the whole fascination thing.

I: I can see from your style that you like to listen to the narrative in people.

Semi-structured Interview (SSI MF)

Interviewer: Julia O'Rourke
Interviewee: MF

Age: 60yrs old
Occupation: Part-time nurse in care home. 6-hours per week as activity co-ordinator.

Q: I want to understand a little more about the lie of the land in Irish nursing homes so to start the conversation I would like to ask you how many years are you working as an activity co-ordinator?

MF:
Only 1 year. I worked myself as, I work as a therapist and have done for many years, I left nursing a few years ago. Just to give you a bit of background, during the recession my clients were down and I went back to do a little part-time geriatric nursing. That would be about 3 years ago. And I suppose while I was nursing I feel like, you know there was nobody doing anything with activities. So I asked her [my manager] would she let me do anything with activities? . Which she agreed to do last year. So she gave me 6 hours a week, last year. So I've just completed 1 year. So I asked her if I could move more into the area of activities. So that's where I'm at with her.

But, I really enjoy the activities. But, they tend not to have as high a profile, you know what I mean, as a nursing staff. And, they always need a nurse whereas you know, you can get on without an activities person if you know what I mean.

JOR: What is your understanding of HIQA and Standards of Care for Older Person's in Care Homes?

MF:
Yeah, I mean, you now we have these HIQA inspections all the time and we have to be aware of all the standards of care and so on. Do you know? So they are moving in that direction, put it that way, but it's slow.

JOR:
When you moved into activities, did you have to do any FETAC course to get into activities?

MF:
No but, I am taking on something. You see last year was a pilot for me. Put it that way. But, she said that this year we would look at training.
But, I suppose, just from my point of view I was 60 (years) this year. I done so many training, do you know what I mean? That I find a lot of the training that I do are young people. They are a lot younger than me and I feel like I've been there, done that, worn the t-shirt a little bit. But, anyway I certainly will be. But, we do ongoing trainings all the time. For dementia care and end of life care, everything. But, maybe not specifically activities based training.

JOR:
And tell me, what has you experience with RT? How did you get interested in it day 1?

MF:
Well I suppose, the reason I was interested in it, was I've been involved in amateur drama for years in my local community and every year we put on a play in our local community, and we put it on in different nursing homes, but I suppose I always had an interested in that notion of telling a story. So I suppose I would have come with that hat on me as it were. I just I suppose, I just love listening to their stories, and It was just something I was particularly interested in. SO when I put it out there to the boss that I'd like to get the reminiscence. She went along with it, even though I don't think she had any particular interest in it herself.

JOR: How have you found people have responded to reminiscence? You yourself, what have you learned about it?

MF: Are you talking about using the digital RT or just a RT group?

JOR: Reminiscence in general?

MF: Okay, am, I suppose what I found, in my care home. Just off the top of my head. I would say there would be almost 70% with dementia. Meaning that to get stories from them. Let's say, the 30% often wouldn't be particularly interested as they are involved, they are reading

But, it's the people that really need it, let's say the 70%, often its hard to keep them on track with it. You just get these little meaningful moments with them rather than being able to follow through on stories, just because of their cognitive impairment. There's always a difficulty there. You know, sometimes we hear the same story, and we just bring up the same story all the time. You know that I mean it's just very, very slow.

JOR: What king of benefits, what kind of outcomes has there been for you, as a therapist doing it?

MF: I suppose I find it very… I mean, I love when they are engaged and they get just these just meaningful moments and, they don't last very long, but they are lovely and I think it's worth it. But, you have the nursing staff and they will say, well we didn't notice any difference in her. But, I think, you may not but, you will get those meaningful moments where there is a connection, and I always think that's worthwhile. But not everybody else does.
Does that make sense to you?

You see them and they're raised out of this kind of isolation they go into. It's just a couple of moments sometimes. But, it is very satisfying for me.

And I suppose, just to, a big factor for me in all of this is, my dad was in a nursing home, he is dead now, for about the last, he was in for about 10 years. And I suppose there was so little activities, and I found that so hard, and I suppose sometimes you can't do it for the person you want to do it for and you do it for somebody else.

Yes, I think there is certainly an aspect of that for me. It just used to break my heart that nobody really got to know who he was, over the years and all the different things he had done and I suppose that informs me a lot. In terms of giving to them what he didn't get

JOR: So you've got your own motivations in there.

MF:
Yeah, I would say that's a big one. I was talking to my sisters over Christmas and I was saying, do you know, I said, I think if dad wasn't in the nursing home I wouldn't have got back into nursing at all. You know you were kind of aware of his unmet needs as it were.

JOR: Yeah

MF:
Yeah, so that certainly was a big factor for me. Because both my parents are gone now and I suppose you just have a bit more time now for people.

JOR: What would you say would be the general profile of an activity co-ordinator in a care home? Is it someone who has reached the end of one career and is looking to give back?

No, Well I'd say I would be very different now. In that generally nurses wouldn't go into… they wouldn't. I suppose I was out of nursing for a number of years and I worked as a psychotherapist for a lot of years. So I suppose I went back into nursing with a different head as it were. Meaning, that the activities really called

me but in general the nurses wouldn't go into the activities work. It is care assistant level that appears to do it. So I suppose… it hasn't that high a profile.

JOR: What do you think the big barriers for care assistants would be? That care assistant level person go into activities?

You see you need to be very self-motivated. That's what I've found because anything I have started I've started it myself. And the boss just, she just let me do what I wanted to do. And I've started lots of different things. But, I would have energy for it.

Coming to retirement and I just want to enjoy what I'm doing at this point in my career. I wouldn't be the normal profile at all.

JOR: How do you think people can get to know people's story? What are the ways that an activity co-ordinator or a carer can get to know somebodies story a little better?

MF: Well certainly spending time with them but given their dementia it's limited. But certainty talking to families is hugely important. Like I did out an activity assessment for each one of them so you know I've spoken to the families of all of them, so I get some key stories from the family.

Like we have a lady now she is late Alzheimer's now, she is really QUITE bad, but there was a little story that her daughter told me about years ago she was on the train with her dad. And the train broke down in the snow. And the station master told them to come into the waiting room. And the station master lit a fire and gave them a cup of tea. Now I often tell her that story to Mary who is really as I said very late but you can just sometimes see a kind of a just a little look in her eye that somewhere it kind of resonated. Yeah but its only momentary and it's gone but a lot of people wouldn't even see the little shift or think that it had any value. I think it does but people differ on that.

I don't know fi that makes any sense to you?

But, it's that kind of meaningful moments. Because you know when your memory is gone. It can only be in the moment, because you are not going to hold on to it.

SO talking to families I think is hugely important. I suppose an issue then is that there's some families that are totally okay with their mother being in a care home and are totally open to the care. There are other families that have lots of issues with not all agreeing that their mother should be in the care home. So there are a lot of issues that emerge that affect the story.

JOR: Do you find that families see activities as a priority?

MF: I suppose a lot depends on their personalities anyway. I suppose some people are very practical by nature and that is what they are going to focus on … washing and dressing and all of that… whereas some people if a daughter loves chatting herself she will chat about her mother. But, I think you need as an activities person to be able to access that when it is available for you and sometimes it is and sometimes it isn't.

JOR: You mentioned you use record forms, do you mostly record the stories on the record forms you have yourself?

Yes I usually write them down even though, I bought a book there recently about reminiscence theatre, and she was talking about scripting some of the stores and writing them up. But certainly I think using their own stories is so much better than having a group coming in and putting on a play that has no relevance to them.

So I would love to do more of that, but, it is getting a few people together that have a similar mind to me but, it's always so busy in there, it is never that easy.

JOR: I know you only have 6 hours per week for activities, so sometimes when you are at work do you find you have to do some other jobs as well?

Well I suppose because I work as a nurse as well, well there would always be a nurse on duty, and I generally am very, I would be fairly clear, you know I set up my group, not so much but it could happen.
Say somebody now, there is a lady and she was about to fall, I suppose I would run after them, so you do get involved, but, I'd be careful to watch it as well.

JOR: How do you get to share the stores with the other staff? How to you let the other staff know so that they can share the moments with the other staff? So that thy

I suppose they are interested. What I find is that the care assistants, more than the nursing staff know them, I mean they do all the work, putting them to bed in the evening, nursing work nowadays there is so much to write that you don't do as much caring. So you do find, I find that care assistants know stories that I don't know, you know, and they see me that I'm not in that much, they feel they are there, which they are, they do huge hours, some of them would be doing 4-5 12 hour days. So they would often think that they know a lot more about them than I do. What I would be doing would be more, focused and I'm not having to get them into bed at the same time.

JOR: Yes, so your time is more protected time

Yeah, yeah and its more quality time with them. I mean if I was to compare the nursing time to the activities, there is just so much to do as a nurse, no matter how much I love them there isn't time. Whereas, as an activities person you just have a laugh with them and we have fun and you can see they liven up you know there is one lady now you can see when we are going stuff she says "Where are we going?" Are we going on a trip?". You know because her energy level is up and she knows that there is liveliness and a bit of happiness. Whereas you know in the caring role there is just so much to do that you haven't that much time. So that's what I love about the activities there's a bit of time for genuinely connecting with them.

JOR: What other type of activities do you do from week to week?

MF: We do lots of different things. Have you heard of Imagination Chain?

JOR: No I haven't

MF: Yeah, there is a lady that does that. Essentially what it is, is its a is a deep relaxation and there are these imaginary stories. One of them is the enchanted forest. And we close the curtains, turn off all the lights, we light the candles and we put some lavender, some nice aromatherapy oils and I play this imaginary gym and you know they just kind of go deeply relaxed and then when its over sometimes you get them to draw a picture of what happened in the story. And we put on relaxing music and we do hand massages on them. So we do that usually on the Friday evening. So that would be one activity.

We do the Sonas, you're probably familiar with the Sonas. We do the Sonas as well. And include, there would always be a bit of reminiscence in that. And proverbs, and nursery rhymes, they love you know. One two buckle my shoe… then off they go…. You know… three four knock on the door. They are very good on those kind of rote… you know proverbs and nursery rhymes… that kind of think.

Now I've recently started a kind of sewing…. I have them making… they all decorating a piece of felt and we are sewing them all together and we are doing a Riverdale Quilt. There is one lady who is quite with it and I've put her in charge so we are calling her our seamstress. She is well able to sew now, some of the others they think they are doing it but you'd actually end up doing it for them but, you know you'd be surprised with things like knitting or sewing, you know they are all activities they did do back in the day and they can actually do again. Knitting is another one. They knit slippers now.

We had a Christmas market on in December and they sold stuff they had made over the year, we had scarves, slippers and lots of bits and bobs and we made €500. [LAUGHS] So they are absolutely delighted with that.

I had a meeting with, a residents meeting, with we will call it the 30% you know, that are with it, to know how would we spend the money? Because I said the €500 was their money so I said what do you want to do with it?

So, I had a few things written down, now one of the things was the digital reminiscence. Because I said "do you remember the stuff ye were watching on the computer?" I said, "what about putting some money aside to pay for that".

It just tells you what they are like. No, they didn't want that. They wanted €200 to go to the Vincent's de Paul. I couldn't believe it! They wanted, one of them said " oh €50 for masses", I said "masses for what?" Masses for, she said for the residents that died over the year.

But, you find you know, that they have great difficulty spending anything on something that they would actually enjoy. I said, "what about those lovely clips you watched on the laptop?", I said you could put a bit of money towards paying for that, I said. Oh, they didn't kind of go for that, you know what I mean. I was surprised by that. I think it is to do with the fact that none of them had actually used a computer. They had all been born 1920-ish. I feel that when I'm 80 I will have used a computer for years. None of them, they are not that comfortable with even a laptop. So that is a factor I think. That they kind of, they are not sure of it. But, I was just disappointed I suppose. [laughs]. I suppose I was thinking you know… I said what about all those lovely clips you watched, I said they have to be paid for. No it was all about masses and giving money to charity. But, it's to do with their, their, I don't know their…

JOR: values?

MF: Yes, that's exactly it, yes. They nearly would have given it all to the priest. I was trying to steer them in different directions. I said what about some DVDs of some old musicals? No they wouldn't go for that either. It was just through things like that you kind of see their values.

JOR: Do you have any animals that you keep in the care home?

No, we don't but, I take them out for walks and there is a few horses in the field nearby. And we look in at that you know, but we are not really in the country, but it is all houses all along on both sides of the road. But, they do this pet therapy you know, that a lady comes out, but, we are not really in the country. It's all houses all along the road.

They do this pet therapy. Where a lady for the animal welfare come in with these little pet dogs and they do love that and they all have a little rub of the dog. And that happens once a week. And they love that.

JOR: What was your computer usage like before you started using the reminiscence system?

MF: What's my own personal usage is that what you are saying?

Well of course, I book holidays, book trips away, I love YouTube, music sometimes, I get some, I would get songs for them from iTunes a bit here and there. Well I've been using the computer about 10 years but I would not be good now technically at all. Meaning if anything goes wrong with it I just call my husband and he would sort it out.

I would mostly use a laptop. Now my husband has a tablet and sometimes I bring that over when I'm going if he is on our computer. But, generally I would use a laptop.

JOR: When you started to use the digital reminiscence therapy system. How did you find it? Was it difficult?

Really and truly, I got the hang of it very quickly. I would say that, you know it is very simply done out, it is not in anyway complicated and I loved that about it.

Yeah, the only issue I had that day was that the WiFi is only in kind of one spot. It is in the visitor's room. But, if visitors come you'd have to get out. It was more those kind of external pressures. But, other than that it was really very clear to me after the call. I went on that night and I figured it out very quickly. It was really very easy.

JOR: With the system are you able to find content that you would not otherwise have found?

Yeah, I suppose what I have found is that they think that I get a kick out of it. Like "The Lucy Show". I would have remembered watching that years ago. And I was delighted when I saw it but, they didn't necessarily remember that and they didn't really watch telly til they were say telly came in in the early 60's. So a lot of them wouldn't have had a telly until they had children of their own.

So I suppose what I'm saying is that programs I got a kick out of watching I thought they would as well but they didn't, not necessarily, but certainly I would say music seems to cross all the boundaries. Say the Judy Garland one… you know there is some lovely ones there and everyone, they all loved them.

JOR: Do you think that the material was culturally relevant for the group?

Well I felt the music was top of the list and again there is one lady loves Pavarotti now. We have shown her Nessun Dorma now, lots of different ones and she really enjoys that. But, as I say a lot of them couldn't actually tell you what they want to watch but, certainly some of the old class, they all like Daniel O'Donnell, there's a few that they all enjoy. But, there was stuff there that I thought they would enjoy that it's not that they didn't enjoy it but, they didn't hold their attention.

JOR: So would you say it didn't reflect their interests?

I would say, they would be interested, now a lot depends on how they are on the day. Some days, they are in good form. There was one lady we got in two weeks ago and she was saying to me, "do you know that song she said "The green Door".

Do you know that song "Behind the Green Door"? But, anyway I pulled that one up, I don't know if it was REMPAD or if it was YouTube but, she absolutely enjoyed it because there was a clip of the green door and them all talking behind the green door and the words of the song came up as well. Oh, she thoroughly enjoyed that and now every time she sees me she says oh the green door.

So that was good, and she is only in now and she is really lively, and I'm delighted with her. You see a lot depends on the group you have. You know you need the, say you have a group of six; you need one to two lively people to pull the others up.

You know so the energy of the group I find is very important. Because, even though I might be running a dementia group I would always pull in one or two who haven't got dementia to pull up the energy.

So I do think getting the right mix is important, you know a few of the quieter ones with the livelier ones, but, some of them could fall into talking about their problems. You can easily fall into that "Oh, I'm not feeling well today". And they know I'm a nurse as well so they would be often, you know I'd have to get them off telling me about their aches and pains, "oh nurse I'm not well at all today", you know, I'd have to tell them to leave that aside for today. So I'd say now "We are going to leave that aside for today", "We are here to have some fun". So I don't get into that. You know I'd have to get them off that. Because, they would pull you into that. A lot of the talk is "How are you today?", "Oh I didn't sleep well. Oh my hip is at me". So its is about distracting them and having a bit of fun. But, you know, some of them aren't able to have fun, it's like they never had fun in their lives, you know they live that kind of a life. You know life was very hard for a lot of them. Do you know what I mean, with very big families? They are not able to have

fun, some of them. It takes a lot of work to crack a smile on some of them and others you have a smile in seconds. So I do think choosing a group is important in terms of knowing them well and knowing their energy.

JOR: What are the main factors you consider when choosing a group?

MF:
I would say that their personality. Like I have a couple of them now they love when I come in and they have a bit of craic and they are on for it and they want it. Whereas there would be others then and they would be like " Oh what are you making us do today?" Kind of an attitude. "Oh no, I didn't sleep now last night, and don't be making us do anything kind of a thing. So they have a different kind of an attitude to me. You know, so am, as well as ability, it is their kind of attitude to life, you know so I think that is a factor.

JOR: So do you have access to any information about their psychological wellbeing? Say a GDS profile?

MF: Because, I'm a nurse I have total access to all their files. So everything is there, and I mean that is what is nice about my position, because a lot of care assistants wouldn't.

JOR: Do you find that it plays a factor in deciding who to put in a group? Let's say, if you are aware of their cognitive score or depression score?

MF: Yeah, it would. And the director of care would often say to me y0ou know, take Maura, she had a bit of a something happened at home or she was worried about her daughter was sick or something and she would say take her today and I would. But, I would always take whoever was willing to come.

JOR: What about the men? How do they engage in the care home activities?

MF: In our care home we have 29. 27 women and 2 men. So that is a big, I mean the men do miss out, there is not a doubt about it. I mean they do come into the reminiscence some times. And they come in together and they won't come alone. A lot of the groups are women and they won't, I brought in, do you remember the old ring boards. I found one in a cupboard so I brought it in. So we tried that the last day and they and a game of rings the 2 of them and they enjoyed that. But, I would say in our place it is harder for them as it is just the 2 of them.

They don't get involved in the little nitty-gritty things that women would be giving out about.

But, I saw a lovely clip, they work in Canada. Steve and Donna, I think Donna was her name. SHE does activities with Alzheimer's. There was a lovely clip on YouTube that I thought was lovely. Essentially what she was saying which I though was a really good point. She and loads of Lego and everything of what you would see kids playing with.

She said it doesn't matter if people think it is childish, it matters if they get a kick out of it. If they enjoy it.

I suppose the point she was making was forget about if people think what you are giving them is childish. She said that when they have this obsessional behaviour. We have one woman that tears up bits of paper all the time. Tearing up bits of paper, toilet paper. She was saying you need to feed the obsession through activity. So for example we give her loads and loads of different coloured paper and tell her it all needs to be torn up.

We have another lady who likes to pinch people all the time. Like pegs on a frame.

It was about getting them through an activity, about getting them to deal with the challenging behaviour. It's about getting them through that.

We have a woman now and she keeps saying "Did I eat too much?" You she must say that about 400 times a day. But, that just goes on and on. I was thinking what could I do with that to kind of get past that.

I do think that activities are possibly a kind of way to manage. To get past that, the obsession we will say.

JOR: How did you find your groups engaged with digital reminiscence in comparison to different types of reminiscence?

MF: I would say it was, it certainly was a good intervention, and they are all different interventions, am, what would I say? I would say that initially I was kind of excited about it myself and I wanted to show them lots of clips. Because, I was saying well this is kind of fantastic. But, I feel I kind of went into overkill a bit [laughs]. You know because I just thought, this was great, whereas I found as I used it a bit more I realized that you know in a group when you have a bit of a flow going and connections made you have to be careful when you bring in the clip so that you don't want to break it too much. You know there is a kind of a….

[END RECORDING 3]

Jog memories can get them talking about different things. But, sometimes you can loose where you were. So I've learnt to limit the number of clips the more I did it and keep it simple and slow.

I think you can do that and I find I much prefer the smaller groups. Now in the care home there is a big huge day room and I know the boss loves me in there. But, I would much prefer the smaller group. Because I think in the day room you get the more extroverted personalities coming out all the time.

Whereas in a smaller group you can access the quieter ones. Because it's a smaller group. I think you can get higher quality in a small group.

JOR: What is a small group? How many was most you had in a group with digital reminiscence?

MF: About I would say max. 6

About 6 was the most I ever had in the group. I used it a little here and there. THERE WAS one or two of them together. They enjoyed that.

I think it has great value on a one to one. Or very small, one on two. Because, I was sitting in between them, one on either side. And you know everyone is engaged in that. But, If 5 or 6 some of them go off on you. Mary will go breaking up her pieces of paper you know [laughs]. It is hard to hold them sometimes.

But, I still think it is a great intervention. But, it is not about your intervention it is about the issues they come with. Are so kind of multifaceted. And any day is different. I could go in and there is something else going on and I there is something else going on. And I couldn't do that. You have to be very flexible I find. Often times I could have it all ready to go and something else is happening and I have to do that. So it is really in the moment. And sometimes even when I'm not doing the activities and say I'm nursing on the weekend sometimes out of the blue they start singing. So you have to be in the moment. Sometimes it doesn't always happen when you want it to happen.

TO be able to just Value their own uniqueness. People forget that they have lived these long varied lives. The young ones just forget that but, I just think I don't forget that.

I started this newsletter. It's working fairly well. It is just news and it goes out every month. Its just news about the care home and what is happening. What I started the last moth was to do a page on a different resident. For example, one of the resident's was a post mistress in a small village outside Ennis. And she was there for 50 years. We did lots of stories about people coming into the post office and when she retired the post office closed down. So it is my intention to do a story on their lives. Some of their lives are more interesting than others. But, I still think you can always pull out little bits and bobs.

She wanted to give one to all her family members. I said Maura where are they all gone?
I love that because I can do it on word myself and take pictures on my phone and put them in. But, it is all similar kind of work.

JOR: You are getting it out to other staff who might read it on their coffee break?

MF: Yeah I'd often put in stuff about the care assistants and that. AND Id say oh did you read the newsletter and they would say yeah, yeah, they don't say much you know.

I think it improves the feeling that we are all a team together. Thank kind of thing. But, I didn't realize how much work goes into it though.

JOR: Tell me about resident's social interaction with their families? What do you feel you can offer families? Is there a role for the activities co-ordinator in this?

MF: There certainly is the possibility of a role. I do think families are important. But you tend to find that families that are very involved and visit the care home regularly and advocate for the resident. I think that works very well. Meaning that, say there would be some now that the family never visits. I think it is good for care staff to be kept on their toes around the needs of residents. I think there is a difference between some family members, genuinely love their mother and father and issues that they bring to the care staff are relevant.

Some family remembers have a lot of issues. Often there would be rows between different family members and sometimes the issues are kind of dumped on care staff and that is not where they belong.

I have been amazed how there is a lot, I suppose maybe it is because I have come with a background in counselling and that that I'm more aware that there is a lot of issues here. I think had I not that background because I was nursing always I might not be. But I am aware that sometimes they project a lot on care staff and that is not where it belongs.

I suppose especially with younger… you know some women can be younger with dementia. It is hard really hard for their families to get their head around that. Care homes can be blamed for stuff that really doesn't belong there.

Activities help, it is a nice way of intervening that is lighter. So I do think there is a role yes.

JOR: Do families come to you and ask you for ideas or suggestions?

MF: Well not as much. I would love if they did. Now one woman she goes to bed in the afternoon and I'm always in the afternoon. One daughter she says oh I'd really like her to do the activities. I said "Well listen I'll do my best". But when I go in, she says "oh I'm going to bed now", so she has never done the activities. And there is not one thing I can do about that. Residents have right to do what they want to do. I can't make them do it. Sometimes I cant do what the families want me to do.

I would like if they spoke to me more really, because I would be totally open to any idea that they might come up with. But, families are very different, like we had one lady, now she died, but, the family, they always played cards at home. You know Twenty-five, and every evening 3 or 4 or 5 of them would arrive in and Mary would be stuck in the middle of them and I THOUGHT it was lovely they all played cards. That's what they did at home and they just moved it from the home into the care home. They would be laughing. I just thought it was lovely. There isn't enough of that.

I though they were just such a lovely family. Families are different! They are just totally different in how they manage. I think there is great possibilities there. And yet it is very slow, in general, in care homes, to get more going on.

Say now over the month of December there is more groups coming in. They have this choir, they have that choir. Then I thought we don't see anyone in January or February. In a way it can be too much for them. But I would love to see more interaction from the resident rather than doing it for them and the residents being passive receivers of it. It think there is a lot around bringing the residents in. I suppose I do have lots of ideas but then I only have 6 hours a week doing activities and my husband says to me "What are you doing that for?" I'd be sewing stuff at home. God I put in loads of extra time.. But I'm enjoying it and I DON'T

mind, not everyone would have the extra time. Most people have children and they are a lot younger than me. I couldn't have done this years ago.

I'm just kind of getting a kick out of it now. And when I turned 60 I though I just want to enjoy what I'm doing. And I'm kind of just enjoying it. If I were not enjoying it I wouldn't do it.

But, I have said to her… she (my boss) is looking that I leave the nursing and I get more hours. That's what I'm looking at. So if she will go with that. That's what I will do.

JOR: As a result of reminiscence do you feel you have better knowledge of the residents and the group members as a whole?

MF: Yeah, yes. Certainly with the people that I regularly work with. I get people someday come in and I don't see them again. I might have had someone and she never came back to the next group. But, the people that would regularly work with me and they would be open to doing whatever I would be doing. Am, yes.

JOR: What would be a factor influencing them not to come back again?

MF: Some of them don't like reminiscence. From the point of view they kind of feel as, kind of sad. I think there is a, I don't know. Even in general in the care home, that you know we jolly them along and we don't be touching into anything sad. Whereas the way I see it any life has happy and sad times and it's the whole ball of wax as it were. Don't allow the sad times to stop you looking but, some of them do. It's like the sad event overshadows all the other good events. And it's hard to get past that. It is hard if they don't want to come to reminiscence and you cant even look at that. But there would be that perception I think with reminiscence that wouldn't be say doing crafts with them.

JOR: Are they more receptive with crafts?

MF: The boss says to me, ah sure they loves the crafts. Now she did a huge renovation, huge renovation on the care home. And it is lovely now. But we were making stuff for the walls to decorate the walls. They do love the kind of physical, you know the felt work,

Look what Maura did this afternoon, its very tangible you can see it, it's a definite thing. It is that kind of practical, whereas sometimes with the reminiscence you haven't anything to show the relative what they did and the relative won't remember they did it anyway.

It is not as easy to show what you've done with reminiscence. I would find that with even the boss. She loves to have things to show around what we did. That's why with the reminiscence even with scripting their stories. To do something practical with the story.

JOR: You have an output then.

Not so much I don't' know. They possibly need that. I think that the powers that be maybe need it to get them to have an awareness of the value of it. Maybe, I don't know.

JOR: It is a really interesting point.

MF: Having something concrete is important because, it is still very new Julia.

MF: In terms of yourself, where did the idea come for you, what got you started?

It is still very slow here (reminiscence). I think yours fantastic. Just to have taken it on. I can see, at my, age I can see the value of it. I don't know if I would have seen the value in it at your age. I think it is lovely that you do see the value inherent in it. Because I do think it has enormous value. That, if we don't value our elderly, what are we about?

It's interesting because we get a few kids you know in transition year coming in. I find I take them, and they love working with me because, I was on the laptop and I was doing reminiscence, they thought we were very modern. But, it helped the kids, to engage with the old people, that technology was a way in for them. That it would have been much harder for them without that. I would say to the young ones then, "Would you take on setting it up?" and they love that, because they are so good at it. So I think that kind of intergenerational work it really facilitates that, because they do bring a youth and a vibrancy and an energy towards older people that I don't.

I had them now one day and they loved it, the Wi-Fi went down and they were able to get it back on track. That was nice. It was a nice way to pull them into seeing older people and that they were having fun.

Just while we are talking there, I pulled up, just write it down. Active engagement using age appropriate activities to engage people with dementia. It was much americanised, it was good in the point she was making. I know in our care home, if I bring in kids stuff, the DON would be saying, Marion you can't be bringing in that stuff. But, what she would be saying is "Does it work?" She is really making that point and she makes it very well. But, I struggled a good bit with that because, I have been out looking for jigsaws, but it is really hard to get nice ones that have the big pieces.

MF: She gave me a bit of a budget, and I kind of have to stay within it, so I just want to know how much, and I would have a concern about staying within it. Because, it seems so little.
She gives me so much, so if I'm paying for this, then I need to swap it for something else.

JOR: Do you think there is an opportunity to get the families to use it?

MF: Yes, I could be trying to do that a little more. My big problem really is that there is only Wi-Fi in the visitors room. That room is for residents bringing their visitors in and making a cup of tea and having a chat. So really it isn't my room at all.

I can't go in there so then you know what I mean I can't do that. I did mention to them can the Wi-Fi be extended but, they don't see any value in extending the Wi-Fi so I haven't kind of pushed it.

You see there is some residents upstairs and they don't get up at all. No I would love to go up there and show them a little clip.

I mean there is so many things like that but, just, you know we would be very, little computerized. You know in most nursing homes they have Epicare. They don't have that. Now the DON will be retiring soon but, I'd say if a younger person took it over. That would be happening. But, it's not there yet. That makes what I can do, its slow. But, I still believe in it. Luckily it is cheap enough I can stick with it. But if it was a lot dearer I couldn't. But I feel for the price I

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