

Drawing Memories: An empowering and enjoyable aged care activity promoting confidence, independence and engagement.

Margaret Rolla¹, Michael Dickinson² and Dimity Pond³

¹Faculty Science and Information Technology, School Design, Communication and IT, University of Newcastle, AU

²Faculty Science and Information Technology, School Design, Communication and IT, University of Newcastle, AU

³ Discipline of General Practice, School of Medicine and Public Health, University of Newcastle, AU

Abstract

It is well documented that active participation in creative activities improves quality of life and clinical outcomes in aged care services. (Cohen, 2006; Gottlieb-Tanaka, 2006; McNiff, 1992). With the population growth in aged care, particularly in dementia care, there is an increased demand for systematic, rigorous research into the health benefits of non-pharmacological interventions such as creative expression activities (Rusted et. al., 2006).

Drawing is a visual communicator and a vehicle of creative expression. As Moon (2010) argues, this is where materials and media play a central role, by acting as an intermediary between thought, communication and the physical experience of creating. This paper presents the outcomes from the "Drawing Memories" program, developed and implemented with the aim of promoting quality of life indicators for elderly people in aged care. Appropriate drawing material and media choices, with their role in providing experimentation and enjoyment, was a key aspect of the professionally designed program. As a pilot study, the "Drawing Memories" program was conducted across two aged care services, both residential and community, in NSW Australia. The research questioned the useability, practicalities and therapeutic potential of various drawing media and activities designed for elderly people with diverse physical and cognitive impairments.

Taking an artist/educator/practitioner approach, the study is set in the context of art as therapy. To address the cross-disciplinary nature of the research, a phenomenology/heuristic framework was used in conjunction with quantitative evaluation measures, to form a mixed methods enquiry into the lived experiences of the participants.

The focus of this paper is on the choice of activities, materials and media and how the participants responded to them. Through the exploration of various media it was found that the participants' confidence, independence and engagement improved while undertaking the drawing activities. An interesting outcome was the Apple iPad rating highly in useability and enjoyment. Further research is needed to address the issues that have emerged from this study.

Keywords: aged care, dementia, drawing, communication, visual language, health and well-being, non-pharmacological intervention, creative expression

Introduction

Dementia cases are rising rapidly. It was revealed in the Summary of Dementia Statistics in Australia (Alzheimer's Australia, 2013), that 1,700 new cases of dementia diagnosed in Australia each week. They predict this number will increase to 7,400 per week by 2050. With more people living longer, greater resources are needed for end-of-life care. This means that the population growth in both aged care and dementia care services internationally, will generate a greater strain on the economies for the provision of the necessary clinical and medicinal care (Castora-Binkley et.al., 2010; Cohen, 2009). These forecasts have sparked an increased interest in, and demand for research into, the health benefits of non-pharmacological interventions, such as creative expression activities. (Cohen, 2006; Gottlieb-Tanaka, 2006; Rusted et.al., 2006). A review of current literature conducted by Castora-Binkley et.al., reveals few studies showing systematic research into the impact on health outcomes, through the therapeutic use of the arts conducted by professional artists, in the field of ageing.

Creative expression activities encompass diverse art forms that include music, performance, writing and the visual arts; the latter being the area explored in this study. Dissanayake (1988), affirms that art is both "pleasurable and advantageous because it is therapeutic" and this concept forms the theoretical framework of this research. Drawing is a fundamental human activity and underpins all art making. As a communicative tool, drawing is a visual language used to 'express our experience of the natural world' (Ramm, 2005) and is inherent in all of us. Because of its primacy, drawing was chosen for this study as a vehicle of exploration into creative expression.

The outcomes from the participation in creative expression activities studied in this paper, is distinct from *art therapy*, a form of psychotherapy. As Castora-Binkley explains, "art therapies are typically provided in clinical settings such as hospitals and hospices by trained health care professionals to heal...the effects of disease and disability" (p. 353). Set in the context of art as therapy, this study was approached from an artist/educator/practitioner perspective. This posits art making purely as an activity rather than a clinical therapy tool, and aligns with the view of Casson (1994) that creativity is therapeutic in itself. In this way, the pleasurable and therapeutic benefits from art making may be considered as an alternative/complementary treatment to medicinal intervention; assisting in the prevention of psychological symptoms such as depression, often experienced by people in aged care (Australian Institute of Health and Welfare, 2013). This research explored the cross-disciplinary connection between drawing, memory and health with its application in an aged care setting, through the "Drawing Memories" program.

The program, developed and facilitated by the researcher, aimed at promoting quality of life for the elderly and people with dementia (PWD). Various drawing materials and media were explored using drawing as the vehicle of inquiry. Moon (2010) argues materials and media play a central role in these activities, by acting as an intermediary between thought, communication and the physical experience of creating. Malchiodi (2012) agrees, but observes that little research has been conducted on the effects and qualities of art materials and media during arts participation. A tacit understanding of this, as a practising artist/designer and educator, stresses the importance of careful consideration when choosing materials and media. Poor media choices often result in poor outcomes and bad experiences. Therefore, it is argued that drawing with appropriate materials, fosters self-esteem and dignity. The study questioned the useability, practicalities and therapeutic

potential of various media and activities designed for elderly people with diverse physical and cognitive impairments.

This paper focuses on drawing material and media choices and how the participants responded to them. At the time of writing, the preliminary statistical and observational data has been collated. In-depth descriptions, analyses and conclusions will come in a future paper. Through the exploration of various media it was found that participants’ overall confidence, independence and engagement improved while undertaking the drawing activities.

Program Overview

Scope

The “Drawing Memories” program was a pilot study; conducted over 12 weeks across two UnitingCare Ageing (UCA) aged care services, in NSW Australia. These services included residential care and community care. A total of sixteen people participated in the study. Small numbers limit the generalisability of the findings for the whole population in aged care, but were appropriate for a pilot study.

Participants

Distribution of participants

Three groups of participants were distributed across two facilities as follows:

1) Residential

Group A: Low care and high care residents.

Group B: Dementia care unit.

2) Community

Group C: PWD and non PWD attending a weekly day therapy program.

The following table identifies the total participants and PWD distribution per groups/facilities.

			NON PWD	PWD
Residential	Group A	High care and low care	3	1
	Group B	Dementia care	0	3
Community	Group C	Combination incl. PWD	7	2
TOTAL NON PWD			10	
TOTAL PWD				6
TOTAL PARTICIPANTS				16

Figure 1. Participant Distribution

Cognitive and physical limitations

All three groups had people with a range of cognitive and physical impairments, which were disclosed by the clinical care team for the purposes of data analysis. All PWD were medically diagnosed, with the level of severity, being based on clinical judgement, as early stage dementia. However, quite diverse levels of symptoms (e.g. behavioural patterns and memory loss) were apparent among the PWD.

Physical and sensory limitations included stroke, arthritic, sight and hearing impairments. One participant was medically diagnosed with profound hearing and sight loss. Out of the 16 participants, there were only 3 who were mobility independent.

Program structure

ACTIVITY	DESCRIPTION	DURATION
1 Intro	Each session began with a 'cuppa' and general chit-chat followed by a discussion of the reminiscence topic of the week. Visual imagery/tactile objects/sensory items were used as props.	15 mins
2 Warm-ups	The topic of the day led into 'warm-up' drawing exercises, which were designed to stimulate memory, thinking and problem solving. The focus was on drawing with traditional media, such as pens/markers. These sometimes went longer if the participants were fully engaged and interested.	5-10 mins
3 Main Activity	The main activity was structured to allow flexibility in delivery. A different medium was introduced each week and demonstrated by the facilitator, but alternate activities/materials were available if it necessitated. Emphasis was on exploration of media without concern for representational description of subject material. The art making was either based on the topic of the day or something randomly chosen by the participant.	30 mins

Figure 2. Program Session Structure

Materials and media

Many materials were researched and tested prior to data collection, keeping in mind the health and safety issues and tools/aids for useability. Although very important, the details are not discussed in this paper. From personal experience it has been found that poor quality materials produce disappointing results. Particularly with the elderly, this may set a scenario of loss of self-esteem and confidence in their ability, promoting discouragement from further engagement. By providing quality materials to people with physical impairment and little or no knowledge in drawing techniques, lays a good foundation of mutual respect between the participants, the researcher and the materials. The drawing paper for instance, was chosen because of its weight being 245gsm (grams per sq. metre). (Photocopier paper is about 90gsm.) A heavier paper doesn't crumple as easily, and it was proven, in this study, to withstand many repetitive drawing strokes, which seemed common in the patients with dementia. They were quite impressed and felt honoured to use quality materials. Their ingrained thriftiness was often revealed through their concern for wastefulness and expense of such media. When offered additional sheets of paper, one PWD remarked "Oh dear, can we afford this?"

A total of twelve different drawing media were explored over the 12 weeks. Ten were introduced as the 'medium of the day', one of which is not included in the statistical data. In the anticipation of rejection due to personal preferences or physical limitations, gel pens, graphite sticks and markers were on standby each week (Figure 3).

	MEDIUM/ MATERIALS	BRAND	DESCRIPTION	TESTING DURATION
Dry Media	Charcoal	Winsor & Newton	Willow sticks - medium	1 week
		Gallery	Compressed blocks	
		Generals	Pencil Kit	
	Clay	Staedtler Fimo AIR	Air drying soft modelling	1 week
	Pastels Chalk	Jasart Deluxe	Soft compressed – set 24 asstd. colours	1 week
	Pastels Oil	Mungyo	Oil – compressed sticks – asst set 24	3 weeks
Wet Media	Acrylic Paint	A2 Artists	Water based – 250ml x10 colours	3 weeks
	Aquarelle Coloured Pencils	Jasart	Water soluble. Option to use dry/wet.	1 week
	Food Colouring	Queen	Water soluble – set 6 mini, asst colours	1 week
	Ink	Art Spectrum	Water soluble, pigmented x 3 colours	1 week
	Marker Pens	Posca	Water based. 7 colours	1 week + standby
New Media	Computer Tablet	Apple iPad3	Brushes app V.3	2 weeks
			ArtRage app V.1.4.7	
Standby	Graphite	Jasart	Sketch Pencils – 12 asst grades	2 weeks standby
		Lyra	Graphite crayons – 2B, 6B & 9B	
	Gel Grip Pens	Hybrid	1mm	All weeks standby
Surface Media	Paper	Jasart Sketch	110gsm A3 White	All weeks
		X-Press Aqua	200gsm A3 White	3 weeks
		Rising Stonehenge	245gsm A3 Warm White	2 weeks
		Cansen	110gsm A4 Coloured	1 week
	Canvas	Fredrix	100% woven cotton 30cmx40cm	2 week
Misc. Tools	Brushes	Jasart	#4; #8	5 weeks
		Reeves WC	Set 12ML; 22ML	
	Clay Modelling Kit	Mungyo	Plastic asst modelling tools	1 week

Figure 3. Materials and Media Overview

Methodology

Systematic testing and evaluation of the outcomes required a mixed methods approach, utilising quantitative evaluation tools and qualitative methods commonly associated with a phenomenological/heuristic inquiry. The ethnographic method of participant observation was used to enable the researcher-as-facilitator to become fully immersed in the phenomena – in this case, the “Drawing Memories” program. During each drawing session, the behaviours and emotional responses were observed by three people – the *researcher*, a *UCA staff member* and a *UCA volunteer*. Three specific techniques were used to collect and record the experiential data from each participant per weekly session – 1) *Participant Questionnaire* 2) *Measured Experience Scale* and 3) *Observation Notes*. To test the effectiveness of the program, *t* tests were used for a comparison of results between the first and last weeks of the program (Figure 8). The following is a detailed description of methods used in the study:

Participant questionnaire – self evaluation

After each session, the participants were invited to answer a set of four questions. The answers were compiled of a series of five emoticons ranging from very unhappy to very happy to which they circled the one that best described their thoughts and feelings about the session. Participants rated their response to 1) the overall session 2) the activity 3) using the materials 4) creating their artwork. The questions and emoticons were designed and developed by the researcher specifically to assist with the evaluation of the “Drawing Memories” program. The answers were entered into a formulated matrix scoring between zero – 4 for each answer. The total score ranged from zero to 16, higher scores indicating a more positive experience (Figure 4).

Measured experience scale – facilitator evaluation

Immediately following the sessions, time was allowed for the observers to reflect upon each participant while addressing specific criteria. The tool developed for this evaluation was based on the Non-Pharmacological Therapy Experience Scale (NPT-ES), which was designed by Muñoz et.al. (2011) ‘..to measure the experience of people with dementia (PWD) while undergoing non-pharmacological interventions’ (p.1). Not all of the criteria fully addressed the Drawing Memories objectives. For an in-depth evaluation of their experience of the program the tool was modified to include two additional criteria – ‘engagement’ and ‘self-confidence’. Subsequently the NPT-ES was renamed as the Post-Activity Observation Measurement Tool (PAOMT) for use in this project. The PAOMT consists of a list of seven behavioural criteria with check boxes relating to the frequency of the respective behaviour displayed. Each criteria attracts a score between zero – 3, results from which being tallied to one overall score ranging from zero to 21, higher scores indicating a more positive experience (Figure 4).

QUESTIONNAIRE

Name..... Date.....

**POST-ACTIVITY QUESTIONNAIRE
'DRAWING MEMORIES'**

Please circle the icon that best describes your thoughts and feelings.

Q1. How did you feel about the workshop session overall?

Q2. How did you feel about the activity?

Q3. How did you feel using the materials?

Q4. How did you feel about the artwork you created?

Drawings designed by Mindful Kids 2012

PAOMT

Self Volunteer Facilitator (please tick) Date: 15/12

**POST-ACTIVITY OBSERVATION MEASUREMENT TOOL
for the 'DRAWING MEMORIES' WORKSHOP SESSIONS**

INDIVIDUAL PARTICIPANTS' EXPERIENCE SCALE *

Participant name: STAN Activity:

ITEM	NEVER	SOMETIMES	FREQUENTLY	ALWAYS	NOT ASSESSABLE
A. PARTICIPATION			<input checked="" type="checkbox"/>		
B. ENGAGEMENT		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
C. PLEASURE		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
D. CONCENTRATION			<input checked="" type="checkbox"/>		
E. SOCIAL INTERACTION		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
F. EMPHASIS		<input checked="" type="checkbox"/>			
G. RESISTANCE					

INSTRUCTIONS

The above experience scale seeks to measure aspects of each participant's experience during the 'Drawing Memories' workshop sessions. Experience is measured in the present moment, conditioned by perceptions of each participant. Some of the observable components of an experience are captured through behaviour and verbal interaction.

The work consists of five items, which must be ticked/checked as per the guidelines included below:

- The observation must be for the entire period of each session, from greeting to closure inclusive.
- Non-verbal will be observed at the end of the intervention.
- One item may possibly document the closing of another. For instance, if a participant has observed the session, they may then tick the 'closed' box of the item and be classified as 'observed' as well as 'non-participant', though not necessarily as 'disruptive'.
- 'Not assessable' will be entered when observations are not available for more than a half of the session.

SCORING

Observable components of an experience are expressed through posture, tone, gestures, words or actions.

- PARTICIPATION:** does attention and regard other spontaneously or to the facilitator's indications in the art activity. Should the participant not understand the phrase or words to perform the task, the facilitator explains and/or re-reads probably for working purposes. N.B. Participant does not necessarily mean engagement or pleasure.
- ENGAGEMENT:** remains focus on the activity, asks relevant questions.
- PLEASURE:** shows signs of working and pleasure/interest and enthusiasm.
- CONCENTRATION:** makes their decisions and choices, on-intake and complete task with limited looking or apparent looking, interest throughout.
- SOCIAL INTERACTION:** communicates positively (verbally), in a friendly manner and/or non-verbally with other participants in the session or with the facilitator, either spontaneously or at the facilitator's invitation.
- EMPHASIS:** displays negative feelings, such as unwillingness, anxiety, confusion, discomfort, shame, frustration. These actions will only be scored as 'pleasure' if accompanied by some other indicators of positive mood (e.g., big thumbs accompanied by loose posture or facial expression of smiling or laughing or the figure accompanied by loose expression of posture). Likewise, actions of rejection (e.g.) will only be included here if accompanied by signs of displeasure.
- RESISTANCE:** exhibits actively against the facilitator's indications (art activity). This includes gestures (e.g., shaking the head, covering the face, turning away and staring at the floor), words, verbal actions (e.g., making noise or shouting, objecting and using profane words (e.g., bad language, swearing, naming). Should the patient throw the length of their body's out of the room it is also scored as resistance. N.B. If a participant is resistant, there is no negative feedback to be given (e.g. if the participant finishes the art activity but chooses to return for the entire session, they may still show signs of pleasure and positive social interaction).

*Based on the Non-Pharmacological Therapy Evidence base (NPT-EB) developed by Kelly, O'Connell, Franklin, Logan, New (November 2011)

Figure 4. Evaluation Measurement Tools

Observation notes

The researcher's immersion in the project was an important part of the process of evaluation by contributing a personal reflection on the phenomena, a reality not captured in statistical data. This took place immediately following the completion of the PAOMT.

Prior to each session, the researcher "checked-in" with the clinical care staff for any relevant issues relating to the participants e.g. emotional upsets or health concerns that could affect their reaction to the activities. Notes were also taken in relation to any visitor or staff intrusions. Notes on visitor or staff intrusions and anecdotal conversations between the participants, myself and other observers were entered into a journal as additional data.

Observational Findings

Through observation it was found that reduced agitation, greater social interaction and improved confidence, mood and attention span was evident. Selected observations are presented as individual case studies as follows:

Observation 1: Introduction of technology embraced better than expected

Outcome: Improved mood and self – confidence

Using the Apple iPad3 proved mentally challenging to all, with one PWD rejecting it. With assistance, they were able to follow instructions, becoming accustomed the interface. Some chose the stylus; most chose their fingers to produce explorative drawings. All showed a sense of pride in

their ability to use new technology. One participant with stroke impairments could only use her non-dominant hand in all drawing activities. She commented that the drawing she produced on the iPad “..is my best yet!” The iPad is not reliant on firm pressure unlike other drawing media and she found this to be pleasurable for her.

Observation 2: Interesting phenomena experienced through observational drawing exercise

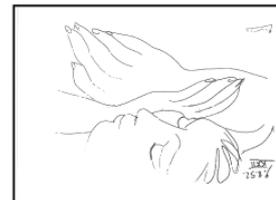
Outcome: Increased concentration and attention span, reduced agitation

Based on Betty Edwards’ upside-down drawing exercise (Edwards, 1999). Aimed at improving observation skills, the original drawing should be viewed upside-down and re-drawn in this orientation. The theory is that when turned right way up, the drawing should display better proportion and spatial identification. Few participants showed this outcome. However, one PWD who had previously shown agitation and reluctance in commencing tasks became fully engaged, producing a close replica of the original Picasso upside-down drawing (Figure 5). Another interesting outcome was observed of a participant diagnosed with dyslexia; while viewing the original in its vertically reversed state, he not only interpreted it in its correct orientation but in its horizontal reversal also, producing a mirror-image of the original (Figure 5). This outcome amazed everyone but the participant; he could not see the phenomenon.

1. PICASSO ORIGINAL IN CORRECT ORIENTATION



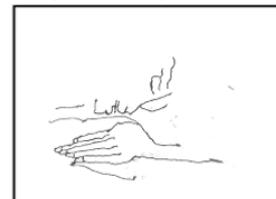
2. PICASSO ORIGINAL IN REVERSED ORIENTATION



1b. PWD DRAWING VIEWED IN CORRECT ORIENTATION



2b. DYSLEXIA (NON-PWD) DRAWN AS MIRROR IMAGE



Picasso, Pablo, (1952). *Sleeping Woman*

Figure 5. Observational Exercise – Upside Down

Observation 3: Creative expression and problem solving through group activity

Outcome: Increased concentration and attention span, improved mood and confidence

This activity spanned the final 2 weeks of the program and culminated in a canvas wall hanging. The “Forget-Me-Not” mural is currently hanging in the boardroom of the head office UnitingCare Ageing, Hunter, Central Coast and New England, NSW. This activity differed from the others

because it involved all groups across both facilities. Each participant was given an A4 section of Van Gogh's famous "Starry Night" (Figure 6) to interpret onto an A3 size canvas. These pieces were stitched together to form the complete image before attaching a rod ready for hanging. Amazingly, pieces constructed randomly across the different groups appeared to match up in many areas. Many participants showed dislike for their 'piece' at the completion of the first week. They were struggling with the concept of 'work in progress' and could not foresee the goal or the 'whole picture'. They endeavoured to copy their given section in the best way possible; one drawing an outline of shapes first, some visually measuring distances and sizes of shapes, while others plunged in with wild abandon. The second week proved better for their morale when they saw their individual groups' completed artworks displaying dazzling compositions full of vibrancy and colour. Each was a complete artwork in its own right. The full effect of the assembled mural was not envisaged until seeing it at the grand finale where it was unveiled a month later (Figure 6). The sense of pride and achievement in the room was palpable. Family, carers, staff and participants stood hushed and in awe of the magnitude of this accomplishment. This observation cannot be measured statistically.

Van Gogh Original



Vincent van Gogh, (1883). *Starry Night*.

Single piece - PWD



"Forget-Me-Not" Mural



Figure 6. Final activity showing the process and completed mural

Statistical Findings

The findings from statistical data are presented as overall outcomes and are not based on individual responses. Week 6 evaluation of 'inks' has been discarded from this data due to questionnaires being completed in only one facility. The evaluation tools each had a different

rating. One had a maximum score of 16 and the other had a maximum score of 21. Therefore the scores were adjusted by the factor 16/21 (meaning the /21 score was scaled down to equate to /16 for equal comparisons (Figure 7).

Weekly Evaluation of Overall Responses showing overall scores from the questionnaires/self evaluation (SE) and PAOMT /facilitator evaluation (FE)

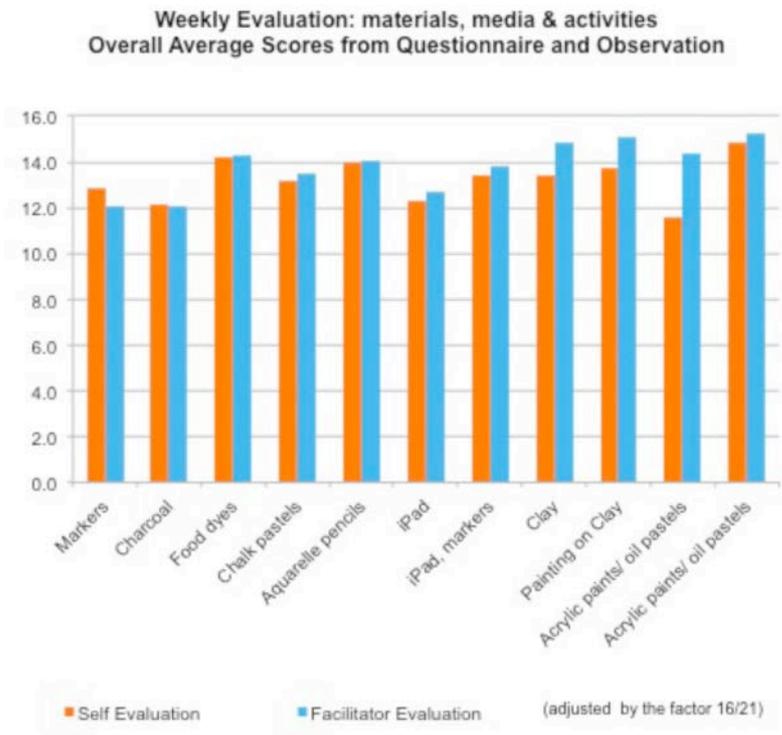


Figure 7. Weekly Evaluation Overall Scores

Comparison of week 1 and 12 – SE and FE scores - *t* test Results (*p* -value)

Statistical significance refers to whether any differences observed between groups being studied are "real" or whether they are simply due to chance. To be statistically significant *t* test results must yield a *p* - value of .05 or less (Campbell and Swinscow, 2009).

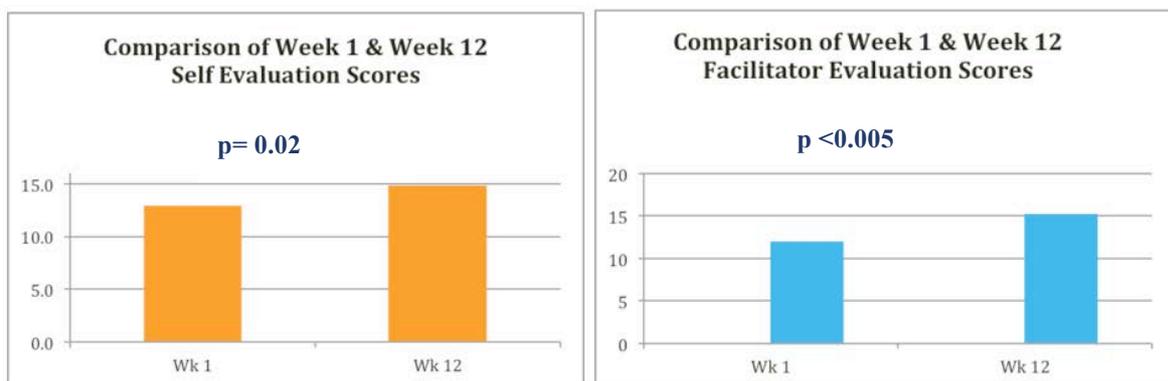


Figure 8. SE and FE *t* tests comparison

Paired student *t* tests were utilised to determine differences between the first and last week scores for both SE and FE evaluations.

Both SE and FE results show a rise in positive outcomes from week 1 to week 12. Both t-test results yield a *p* - value of <0.05. This means there is a high probability (more than 95 per cent chance) that these responses would NOT be observed if the "Drawing Memories" program was ineffective. This difference could either mean that participants felt better about the sessions and finished artwork at the end than they did at the beginning, or it could mean that they enjoyed the activities/materials used in the last sessions more than the activities/materials used in the early sessions. To isolate specific trends the data will require further analysis, or a larger scale study.

Limitations, discussion and conclusion

The paper recognises that the study has limitations. When research involves the study of people it is difficult to quantify human behaviour and emotions. When reducing it to a rigid set of statistics the full appreciation and 'human' components of the experience may be disregarded. One of the major limitations of measurement tools in this study is of the validity of the questionnaire, which has not been established for people with dementia. However, the simple illustrative design proved effective in that minimal words were used, thus enabling easier processing of the questions by PWD.

As demonstrated in the case of the participant with stroke impairments, with use in only her non-dominant arm, the Apple iPad was shown to be more effective in useability. Art making outcomes improved because less pressure was needed to receive desirable results. Through observation and conversations, the introduction of new media was a success beyond our hopes. While not the highest in positive responses, it was higher than expected considering the non-technological abilities of this generation. In spite of both cognitive and physical limitations, most participants adapted to the newest technology. This is an area where further research may be conducted, to address the issue of the forecast growth of population in aged care. Future generations are more technology literate and will expect this to be age-friendly and accessible to them.

Although the results are not conclusive, the observational data show that agitation levels were visibly reduced. These are all indicative of a better quality of life. Unfortunately this study does not provide evidence that these results have long-term impacts on their health and well-being. However, it seems problem solving and reminiscence can stimulate the mind, which the outcomes from the program suggest. Moreover, if healthy memory relies on its practice, particularly in creative pursuits, as Minichiello (2012) revealed in his recent exploration of the role drawing plays in memory stimulation, it is reasonable to consider that regular participation in reminiscence based drawing activities, may assist in cognitive function of the elderly and people with dementia. It is argued then, if participation in creative activities has such a positive effect, then regular implementation of these activities, as a companion treatment, could reduce the reliance on medicinal intervention.

In conclusion, the mixed methods results imply that the Drawing Memories program had a positive effect on the well-being of the participants, at least during the sessions. Through the exploration of the useability and practicalities of various drawing media and activities, it was found

that participants' confidence, independence and engagement improved while undertaking the activities. It can therefore be argued that drawing with appropriate materials and media, can be effective in promoting quality of life for people in aged care.

References

- ALZHEIMERS AUSTRALIA (2013). Key facts and statistics. [online]. Article from Alzheimer's Australia last accessed 17 November 2013 at <http://www.fightdementia.org.au/>
- AUSTRALIAN INSTITUTE OF HEALTH AND WELFARE (2013). Depression in residential aged care 2008-2012. *Aged Care Statistics Series*. Number 39. [online]. Article from AIHW last accessed 16th August 2013 at <http://www.aihw.gov.au/>
- CAMPBELL, Malcolm J. and SWINSCOW, T.D.V. (2009). *Statistics at square one*. 11th ed., London, Blackwell Publishing.
- CASSON, J. (1994). Flying towards Neverland. *Dramatherapy*, **36**, pp. 2-7.
- CASTORA-BINKLEY, M., NOELKER, L., PROHASKA, T. and SATARIANO, W. (2010). Impact of arts participation on health outcomes for older adults. *Journal of Ageing, Humanities and the Arts*, **4** (4), pp. 352-367.
- COHEN, G. (2006). Research on Creativity and Aging: The positive impact of the arts on health and illness. *Generations*, **30** (1), pp. 7-15.
- COHEN, G. (2009). New theories and research findings on the positive influence of music and art on health with ageing. [online]. *Arts & Health: An International Journal for Research, Policy and Practice*, 2009, **1**(1), 48-62. Article from Taylor & Francis Online last accessed 16 February 2012 at <http://www.tandfonline.com/>
- DISSANAYAKE, E. (1988). *What is Art For?* Seattle, University of Washington Press.
- EDWARDS, Betty (1999). *The New Drawing on the Right Side of the Brain*. 4th ed., New York, Tarcher/Putman.
- GOTTLIEB-TANAKA, D. (2006). *Creative Expression, Dementia and the Therapeutic Environment*. Unpublished PhD thesis, University of British Columbia, Vancouver.
- MALCHIODI, Cathy A. (ed.) (2012). *Handbook of art therapy*. 2nd ed. New York, Guilford.
- McNIFF, S. (1992). *Art as Medicine*. Boston, Shambhala.
- MINICHIELLO, M. (2012). Drawing as a means of stimulating memory and aiding recovery. *Generations*, **2** (3), pp. 179-194.
- MOON, C. H. (ed.) (2010). *Materials & Media in Art Therapy: Critical Understandings of Diverse Artistic Vocabularies*, New York, Routledge.
- MUNIZ, R., OLAZARAN, J., POVEDA, S., LAGO, P. and PENA-CASANOVA, J. (2011). Npt-Es: a measure of the experience of people with dementia during non-pharmacological interventions. *Non-Pharmacological Therapies in Dementia*, **1** (3), pp. 1-11.

PICASSO, Pablo (1952). Sleeping Woman [Drawing] 9.81"x7.88". *Picasso Line Drawings and Prints*, 1981. New York, Dover Publications.

RAMM, A. (2005). What is Drawing? Bringing The Art Into Art Therapy, *International Journal of Art Therapy*. **10**(2), 63–77.

RUSTED, J., SHEPPARD, L. & WALLER, D. (2006). A multi-centre randomized control group trial on the use of art therapy for older people with dementia. *Group Analysis*, **39**(4), 517–536.