

Scaffolding to facilitate artistic success

Producing works of art can be fulfilling in its own right for people with dementia, regardless of therapeutic outcomes. **Alexandra Ramsey** and colleagues show how people can be supported to use their “retained skills” in painting and drawing.

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Arts interventions have been shown to be beneficial for people with dementia, especially when they are person-centred and built on the assumption that these are individuals with human needs rather than patients with symptoms to be treated.

Observational measures have shown improvements in task interest, sustained attention, self-esteem, sadness, pleasure and verbal expression of feeling normal compared to non-art interventions (Kinney & Rentz 2005). Benefits can also be cumulative if participation is maintained over time (Rusted *et al* 2006).

Beard (2012) distinguishes art activity and art therapy for people with dementia. While both are beneficial, art therapy seeks to create some measurable outcome in symptoms or behaviour, which may benefit carers as well. Previous literature tends to focus on the therapeutic aspect, homing in on disease and behaviour-related outcomes such as depression scores or reductions in undesirable behaviours. It relies heavily on the reports of caregivers and observation rather than the opinions and feelings of the people participating in the activities.

This focus violates two important needs, both noted by Tom Kitwood (1997), namely the need for identity (positive perception of the individual by the self and others) and the need for inclusion (to be a legitimate player in social groups, culture and wider

society). In this case, identity is violated by positioning the art participants as patients or subjects, while inclusion is violated by excluding the voices of people with dementia from research.

By contrast, anyone can participate and experience the benefits of art activity and they do so for improvements in wellbeing, emotional expression and creative occupation (Beard 2012). If we consider art production in dementia as an *activity* rather than a *therapy*, then investigations can go beyond disease-based therapeutic outcomes and consider person centred care-based outcomes such as art quality and individual wellbeing.

As the art produced by people with dementia is often considered to be of low quality (Gretton & ffytche 2014; Kirk & Kertesz 1991; Seifert & Baker 2003; Seifert *et al* 2001), engaging them in art activities has typically been focused on achieving a therapeutic outcome. We will argue, however, that this emphasis demonstrates a failure to recognise and facilitate retained art skills, rather than an absence of them.

An activity such as drawing can be considered as a production line, requiring the individual to contribute several different skills to achieving a desirable outcome (see Figure 1 below). Someone may have many intact cognitive skills, such as procedural memory and composition perception, but cognitive skills such as task sequencing, perception and explicit memory may be impaired

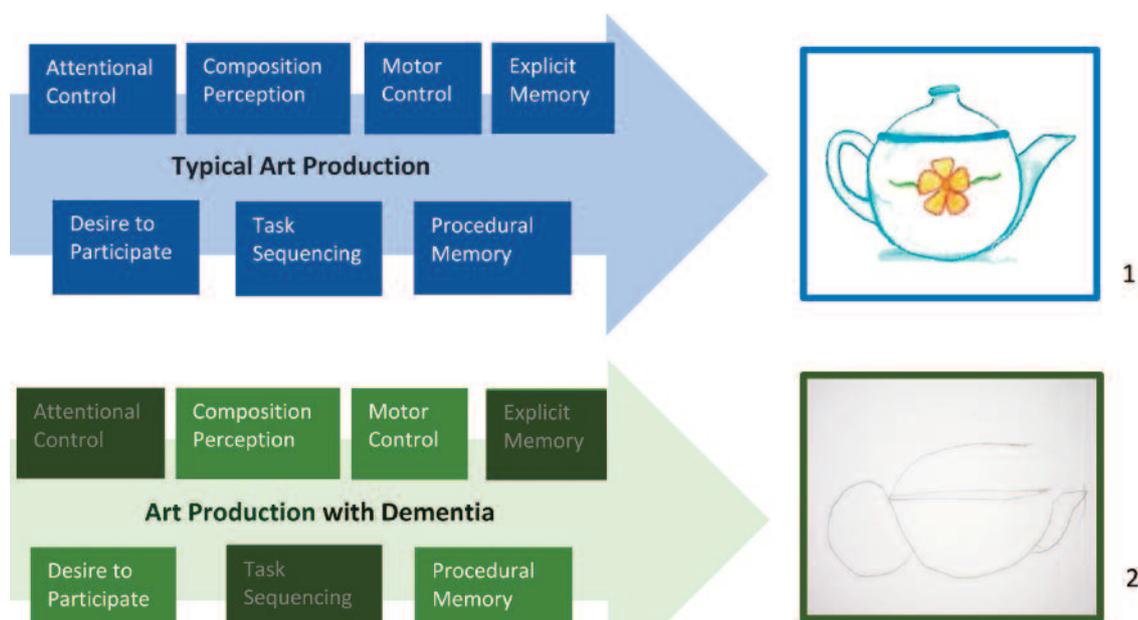
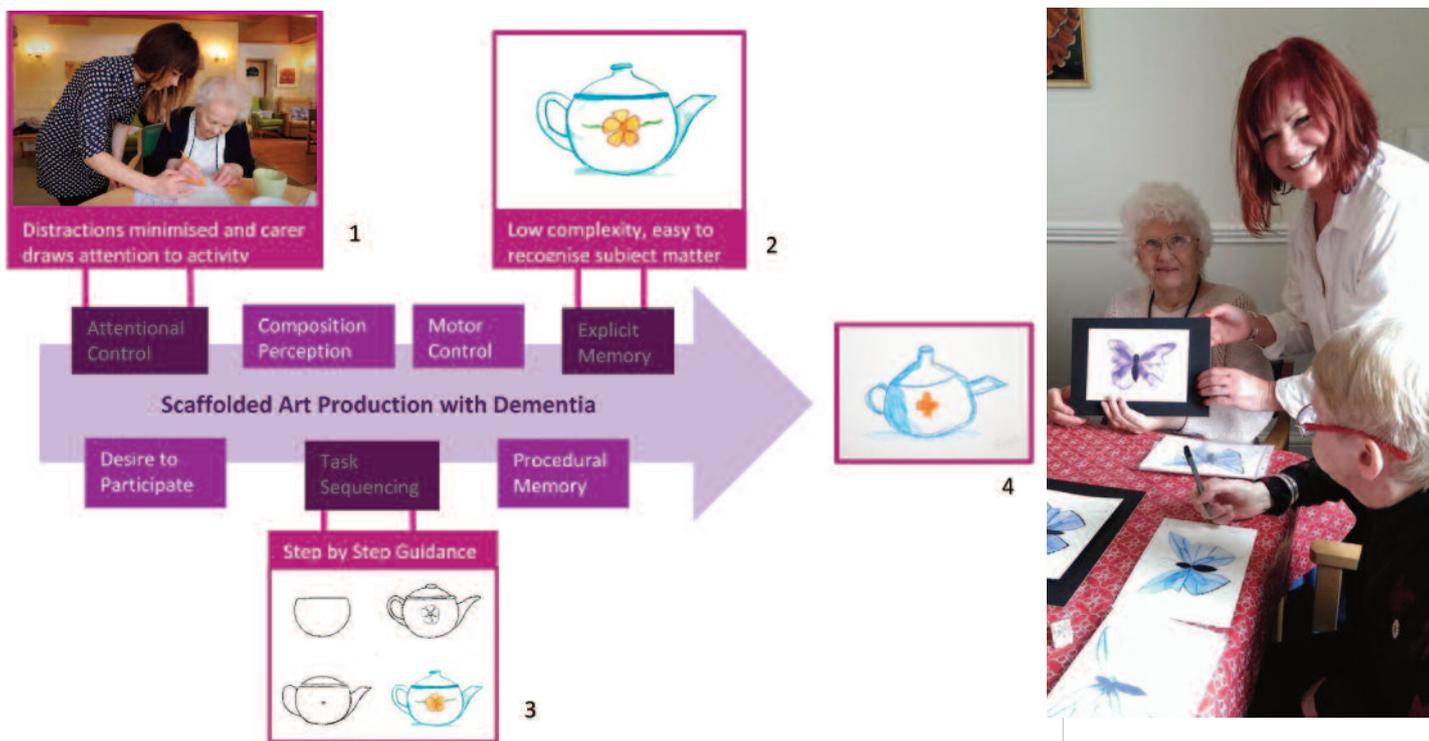


Figure 1: Specific skills needed for art production can be lost in dementia. Drawing (1) is by a person without dementia, while (2) was produced in “unscaffolded” conditions by someone with dementia.



and result in a reduced outcome (see Drawing 2 in Figure 1) (Gretton & ffytche 2013, Kirk & Kertesz 1991, Seifert & Baker 2003, Seifert *et al* 2001). An observer perceives the reduced outcome as indicating a lack of ability to complete the activity (as in previous research), but we think art skills are retained in dementia and aim to demonstrate this using a technique known as “scaffolding”.

Scaffolding art

Originally an early-years educational theory, scaffolding is a naturally occurring process between people with dementia and their carers in which an individual who lacks some cognitive, physical or linguistic ability is guided to participate in an activity that they would struggle with on their own (Cavanaugh *et al* 1989; Cicourel 2012; Hyden 2011, 2014, Vygotsky 1987). Vygotsky’s theory concerns three areas: what can be achieved alone, what can be achieved with support and what cannot be achieved at all. The “zone of proximal development” (ZPD) represents the space between what can be achieved alone and what cannot be achieved at all (Vygotsky 1987). Scaffolding bridges this gap, taking people to the best they can achieve.

For people with dementia, scaffolding provides an opportunity to employ retained skills to maximise the success of an activity. This facilitation can cultivate a sense of identity and demonstrate that the person’s deficits do not define them (Anbäcken *et al* 2015). Our investigation is the first to propose the use of dementia-tailored scaffolding for art activity sessions to mitigate the effect of common deficits, allowing people to use their retained skills in painting and drawing.

It has been suggested that the most accurate assessment of the skill set of people with dementia can be gained by observing them in collaboration with other people. These partnerships highlight the fact that they can and do demonstrate their retained

skills when given the opportunity (Kindell *et al* 2016). So observing them drawing under scaffolded conditions may provide a more accurate representation of their artistic skills than has been demonstrated in previous research. Scaffolding techniques may also improve wellbeing and visuospatial skills in participants, maximising the positive effects of art interventions seen in research before now. Finally, facilitating the use of retained skills in visual art production could help to tackle negative perceptions of people with dementia through the display of scaffolded art.

Little Art School

The Little Art School Trust (LAST) is a registered Scottish charity offering art classes to people with dementia in Ayrshire and East Renfrewshire through their “Art in a Suitcase” project. All participants are in residential care. The project is a real-world example of naturally developed scaffolding in which structured (but flexible) art classes helps people to maximise their drawing performance and be proud of the work they produce.

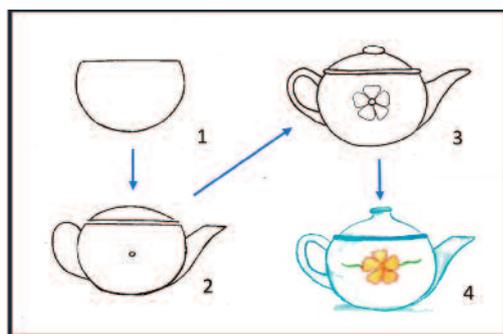
Scaffolding different tasks is complex, as techniques for one activity may not be appropriate for another, so the LAST programme involves a new modality of scaffolding yet to be investigated. While their methods are not explicitly referred to in terms of scaffolding, LAST’s aim of maximising benefit to clients by supporting an engaging activity bear a close resemblance to its principles. The programme gains an understanding of its clients’ strengths and deficits and integrates it into drawing and painting activities.

Using a set of targeted scaffolds for those cognitive deficits identified as inhibiting art production, LAST aims to bridge the ZPD (see Figure 2). While explicit memory does not interfere with basic drawing activity, it could cause distress or

Figure 2: (above left) Targeted “scaffolds” can compensate for specific skill deficits. (1) shows a Little Art School (LAS) teacher working with a person with dementia, (2) is an example of the subject matter used for drawings, (3) is a step-by-step guide from LAS classes, and (4) is a scaffolded drawing by someone with dementia.

Above: drawing class in the Little Art School .

Figure 3: Step-by-step template for scaffolding of task sequencing used in the structured art sessions.



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confusion if individuals do not know where they are or why they are there. This is tackled by starting each class with "warm ups" where participants have a chance to doodle freely. The warm up gives them a chance to exercise the motor skills they require for the art task and ground themselves in the present activity before they are asked to engage with the step-by-step scaffolds in the lesson. In addition, easily recognisable subject matter helps clients to recognise what they are drawing, with "templates" showing bold, recognisable objects, such as a teapot, on display throughout the lesson (see figure 3).

Impaired task sequencing commonly interferes with planning and carrying out activities in dementia (Baum & Edwards 1993). In response, LAST created the step-by-step templates to break drawing down into manageable steps and provide a reference for individuals to assess their skills. It was also noted that clients with dementia were struggling to reach for art materials in the correct order (picking up a paintbrush when they wanted a pencil), so art facilitators now present each person with the tools they need as and when they need them. Unnecessary debris is cleared away to avoid confusion.

Attentional deficits also interfere with task success, so materials are provided in such a way that attention is not distracted from the task in hand (Parasuraman *et al* 1992). Noise is minimised and, if participants become distracted from their art, their attention is gently brought back to it. Step-by-step provision of art materials helps ensure attention is not diverted from the task by clutter, while print-outs of previous drawings aim to prevent the urge to interact with objects rather than draw them (e.g. eating an apple intended as a still life).

Art facilitators encourage and praise clients for their drawings to maintain motivation, avoiding boredom and frustration by offering more complex drawing options to more skilled clients. The programme is tailored to individual requirements. Clients are encouraged to sign their work so visitors can see that it is theirs and the framed drawings can often be found on display in their care homes.

LAST was keen to investigate how far its structured sessions improved clients' visuospatial skills. Previous research has not looked at whether scaffolding in art activities can facilitate cognitive improvement in people with dementia.

Investigation: part 1

The first stage of our investigation aimed to test whether the scaffolded LAST art activity would result in improvements in visuospatial ability compared

with an unscaffolded art activity. This was done by organising two art activity sessions. The first followed the normal structure of LAST sessions, but the second was a completely unstructured session completed at least a week later. In the unstructured session, participants were asked to do their own drawing using only the final teapot image on the template (no 4 in figure 3) to guide them, while facilitators were instructed to give only minimal facilitation. Both activity sessions followed administration of wellbeing and visuospatial measures.

Wellbeing was tested with the dementia quality of life scale (DemQOL), a self-report measure, because we did not want to exclude the voices of people with dementia by relying on carer reports or observational measures. Higher levels of wellbeing following the structured session compared to the unstructured would demonstrate that scaffolding provided greater positive effects.

Visuospatial ability was measured using an extract from the Addenbrooke's Cognitive Examination (ACE III) (clock drawing, letter identification and infinity pattern). If scaffolded sessions yielded higher visuospatial scores than unscaffolded sessions, this would demonstrate that scaffolding could improve cognitive skills and more so than in the absence of scaffolding.

Eight people with diagnoses of dementia or cognitive impairment living in three residential care homes in Ayrshire were recruited as volunteers to participate in the investigation (see Table 1 below). All participants undertook the scaffolded session having completed the wellbeing and visuospatial measures, although two of them did not then go on to attend the unscaffolded session. A further three did not wish to complete the measures after the unscaffolded session, but still completed drawings.

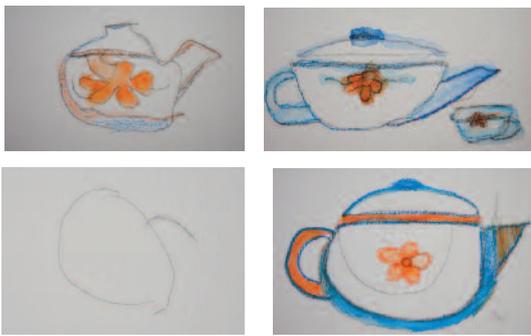
Part 1 results

The mean DemQOL score was higher in the structured session than the unstructured, but the difference was not statistically significant. So scaffolded art activity does not increase wellbeing when compared with unscaffolded activity. It should be remembered, however, that three out of the eight participants in the unstructured session did not wish to complete the measures after the session.

Structured sessions were bright and full of chatter and this mood appeared to last for hours following the activity. But the unstructured activity was quiet and some participants appeared to become strained and confused about the aims of the drawing task. They appeared withdrawn and declined to

Table 1: Information about participants

	Gender	Age	Diagnosis
1	Female	87	Probable Alzheimer's Disease
2	Female	92	Probable Alzheimer's Disease
3	Female	81	Vascular Dementia
4	Male	83	Mixed (probable AD & Vascular)
5	Female	94	Mild Cognitive Impairment
6	Female	76	Probable Alzheimer's Disease
7	Female	85	Probable Alzheimer's Disease
8	Female	85	Stroke



Two “scaffolded” drawings (on the right, above) compared with “unscaffolded” drawings on the left.

participate in testing.

This leads us to speculate that the scaffolded task did yield benefits to wellbeing, although these could not be properly compared with the unstructured task because a low-key atmosphere meant that some participants were in no mood to take part in the post-session measures. The same effect may have been at work when we found no significant difference in visuospatial ability improvement between the two tasks.

Investigation: part 2

In the first part of the experiment, 11 structured and nine unstructured drawings were collected. A cursory look suggested to the researchers that the art completed under scaffolded conditions was of a higher quality than the unscaffolded (see drawings above). To discover whether this observation was significant - and if scaffolding really did facilitate the use of retained drawing skills - we asked people unaware of the purpose of the study to rate the drawings. People were selected on a random, opportunistic basis by asking people in the School of Psychology and in local businesses. Twenty people without professional art expertise rated the success of the drawings in achieving a likeness to the teapot on a simple 0-10 scale. Each drawing was presented for rating beside the target teapot image (see Figure 4), then we divided up the ratings between the structured (n=218) and unstructured (n=162) categories in order to compare the two sets of ratings.

Part 2 results

The mean rating for structured drawings (5.00 out of 10) was found to be significantly higher than that for unstructured drawings (2.12 out of 10), which is evidence of a recognisable effect when art production by people with dementia is scaffolded. The data suggest that that the scaffolding programme

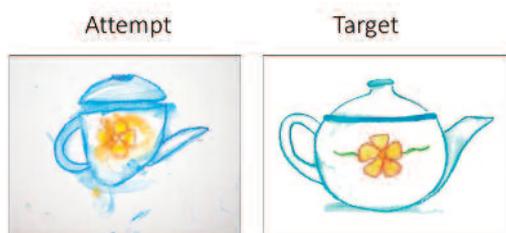


Figure 4: Drawings were rated by comparing each one with a “target” drawing.

designed by LAST increased drawing success.

By compensating with scaffolding for the damaging impact of dementia deficits (relating to, for example, explicit memory, task sequencing and attentional control), facilitators enabled participants to reveal a retained ability to create art by achieving a likeness to a given object (e.g. the teapot). The results demonstrate that there is an art-specific ZPD in dementia and that, by the use of scaffolding to bridge the gap, participants were able to draw more competently than they could on their own.

Discussion

While our research did not replicate the wellbeing improvement of structured art activity shown in previous studies, it has provided support for the practice of scaffolding in art activity for people with dementia. The present findings contradict previous research suggesting that dementia art is of poor quality and that the only reason to facilitate it in such cases would be for its therapeutic benefits (such as reduced depression or anxiety) (Gretton & ffytche 2014, Kirk & Kertesz 1991, Seifert & Baker 2003).

In contrast, we have shown that drawing a likeness of subject matter such as a teapot is possible with retained skills, indicating that structured scaffolding is an important factor in optimising the success of art activities in dementia. It can be an activity for personal fulfilment and artistic expression rather than a therapy (Beard 2012). Our study also supports the idea that scaffolding could be applied more broadly to activities such as cooking or personal care.

The effect of scaffolding in maximising the utilisation of retained skills was apparent to the lay raters who were invited to assess the drawings against the target image. The scaffolded drawings suggest that, even if we cannot see retained skills in dementia under normal conditions, it does not follow that those skills are absent.

Attitudes toward dementia still focus on deficits and what people *cannot* do. Scaffolded art presents a visual example of what people with dementia *can* do (see Figure 5). It has the potential to engage people with different levels of expertise, education, age and language in finding an outlet for retained skills that all too often go unnoticed.

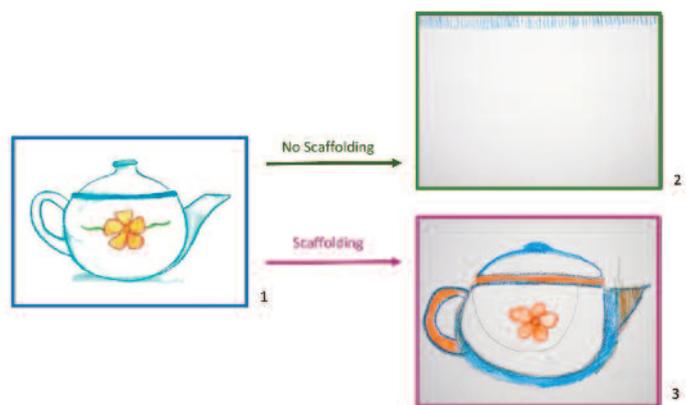


Figure 5: Comparison of drawings achieved by one participant, showing the target drawing (1), the drawing done without scaffolding (2) and the drawing done with scaffolding (3).

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