

Orlando Ely. DP607

Proposition

Hero Shot



Blossom

Stroke and dementia sufferers find current therapy tools “boring and childlike”. Lack of mental stimulation leads to de-motivation and the neglect of exercises necessary for recovery. Traditional therapy uses everyday objects offering no enjoyment, reward or goal progression to give a sense of improvement. Disconnected from nature and the world around them by their condition, patients need meaningful therapies that give a sense of normality and control, and help them re-engage with their interests.

Blossom is a hand held therapy device consisting of three buildable flowers. Made up of petals and bases the flowers are constructed using cognitive function and fine motor skills, vital to regaining independent living. Ranging in complexity and challenge, the simple frangipani exhibits the whorled phyllotaxis pattern and the camellia and water lily the spiral phyllotaxis. Each flower can be constructed and disassembled as many times as required, becoming part of daily routine therapy.

Blossom motivates through the creative process in building the flowers which “reduces depression and isolation” (Hanneman, 2005). The connection to, and enjoyment of, nature that the target user group desire and value, is found in the aesthetics and in the natural geometry of the petal layouts. “When presented with pattern a specific part of the brain is activated associated with reward” (Konovalov & Krajbich, 2018). Through interaction with Blossom, the user’s experience of growth and nature encourages engagement with the world around them.

Blossom provides a meaningful activity and achievement in outcome that inspires the repeated actions needed for rehabilitation. Blossom encourages emotional attachment to the product and with it to the therapy, accompanying stroke and dementia patients on the path to independent living, and to engaging in the activities that they love again.

Angle 1



Displaying the flowers brings a sense of ceremony, making routine exercises more special leading to greater engagement with the therapy

Angle 2

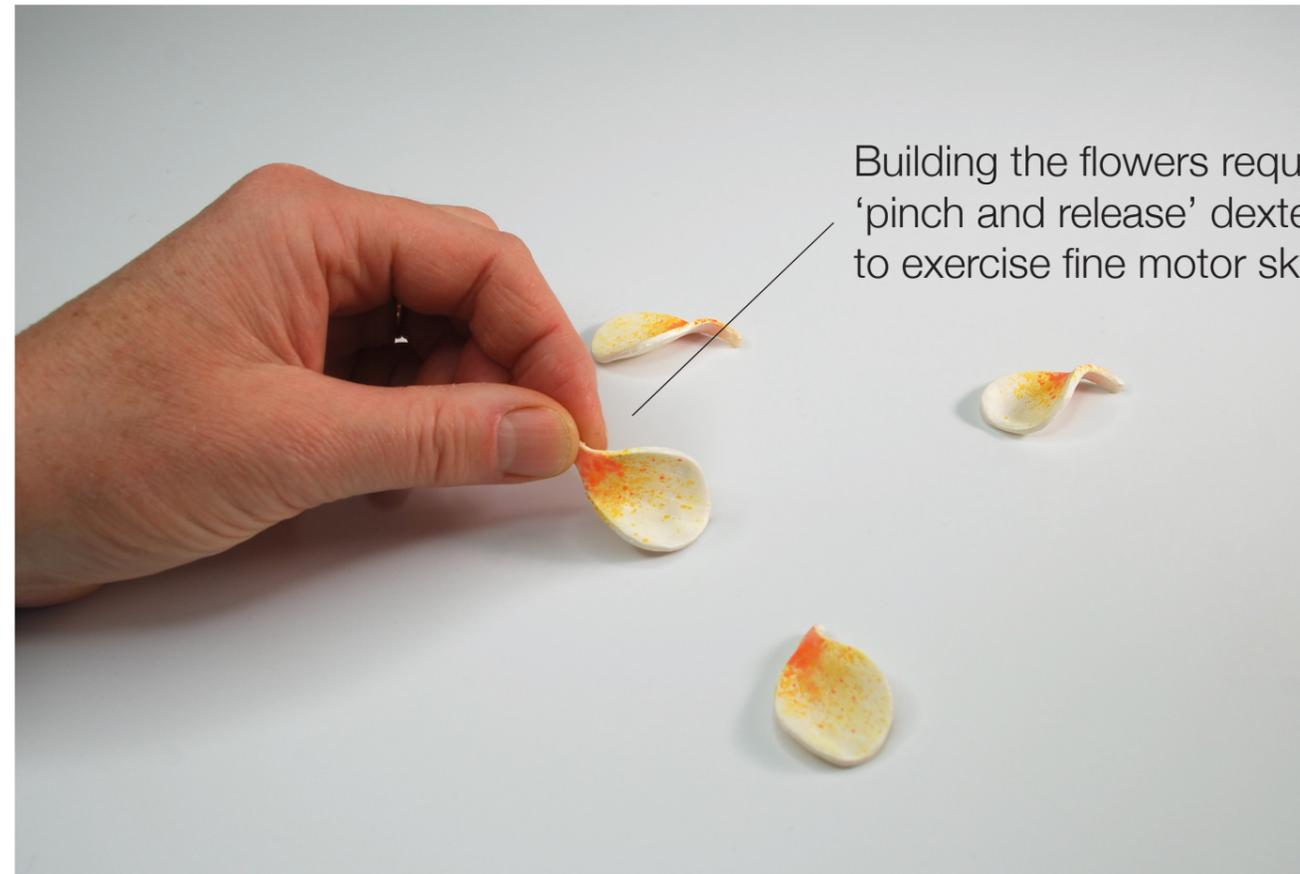


Three levels of challenge - frangipani offers an approachable task, building confidence upon completion to move onto the harder camellia and water lily

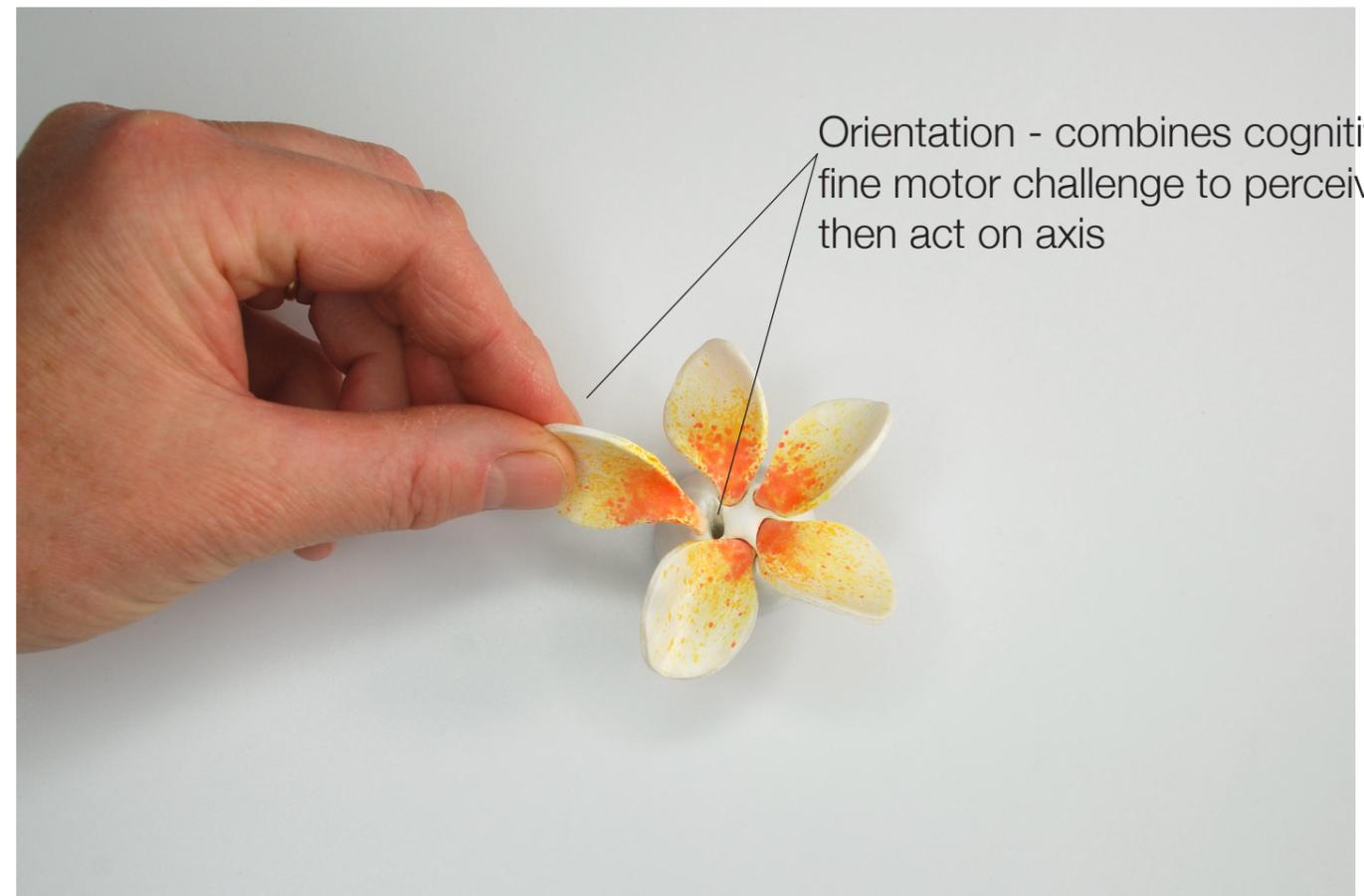
Details



The frangipani flower is constructed using five petals, placed in the base with its whorled phyllotaxis pattern



Building the flowers requires the 'pinch and release' dexterity therapy to exercise fine motor skills



Orientation - combines cognitive and fine motor challenge to perceive and then act on axis



The camellia is more complex, using twelve petals to discover the spiral phyllotaxis pattern



The two layers of petals is a greater challenge:

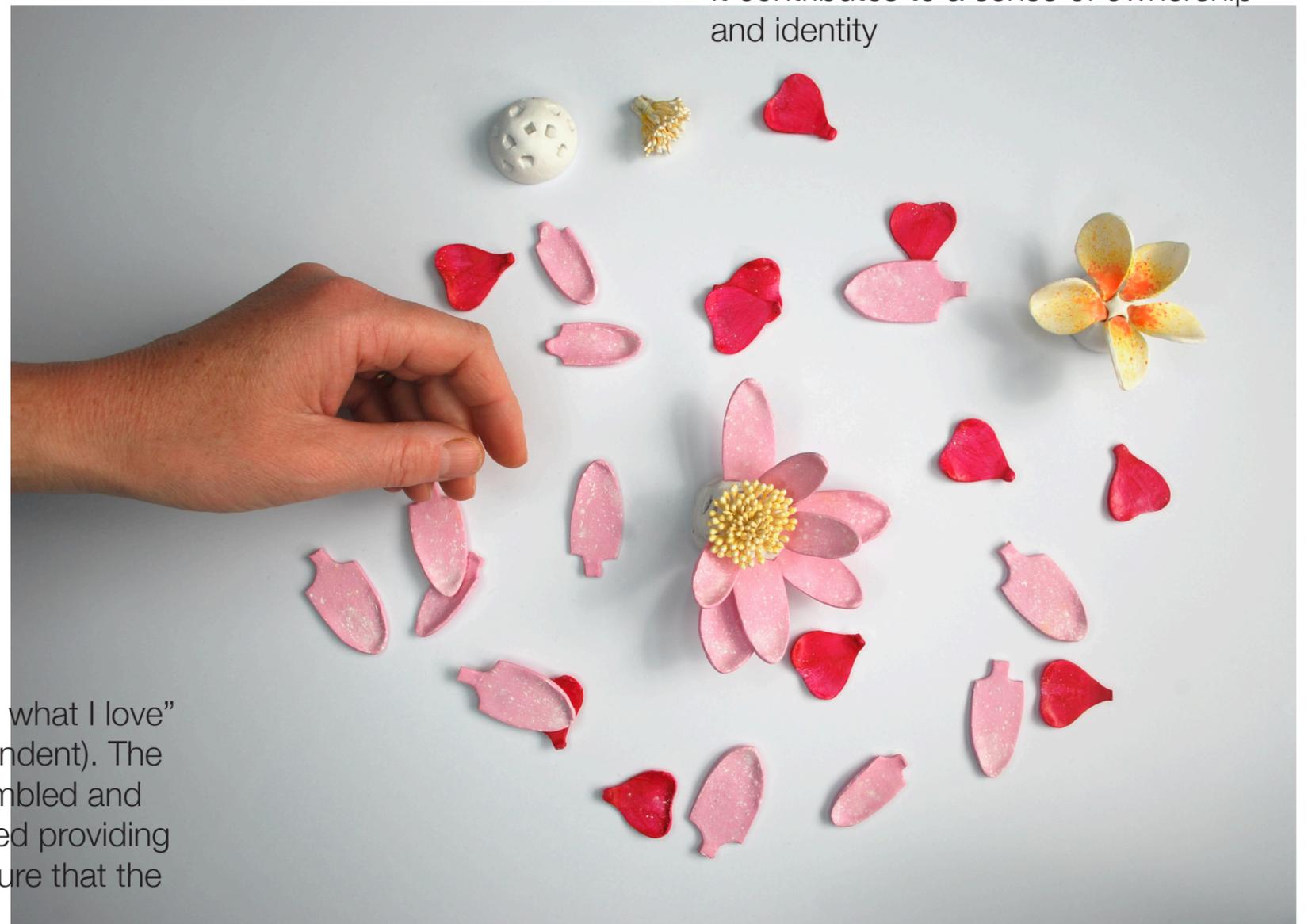
'If something is hard but possible, the challenge itself stimulates and tests the individual's dexterity and mental capability to explore and find the solution' (Stroke Assoc., n.d.)

Fluid form provides tactile stimulation



Variation of petal form challenges dexterity and overcomes the repetitive nature of other therapy tools, it is “much more satisfying to create a piece of art” (user testing). Choice expands the creative outcome possibilities encouraging reuse

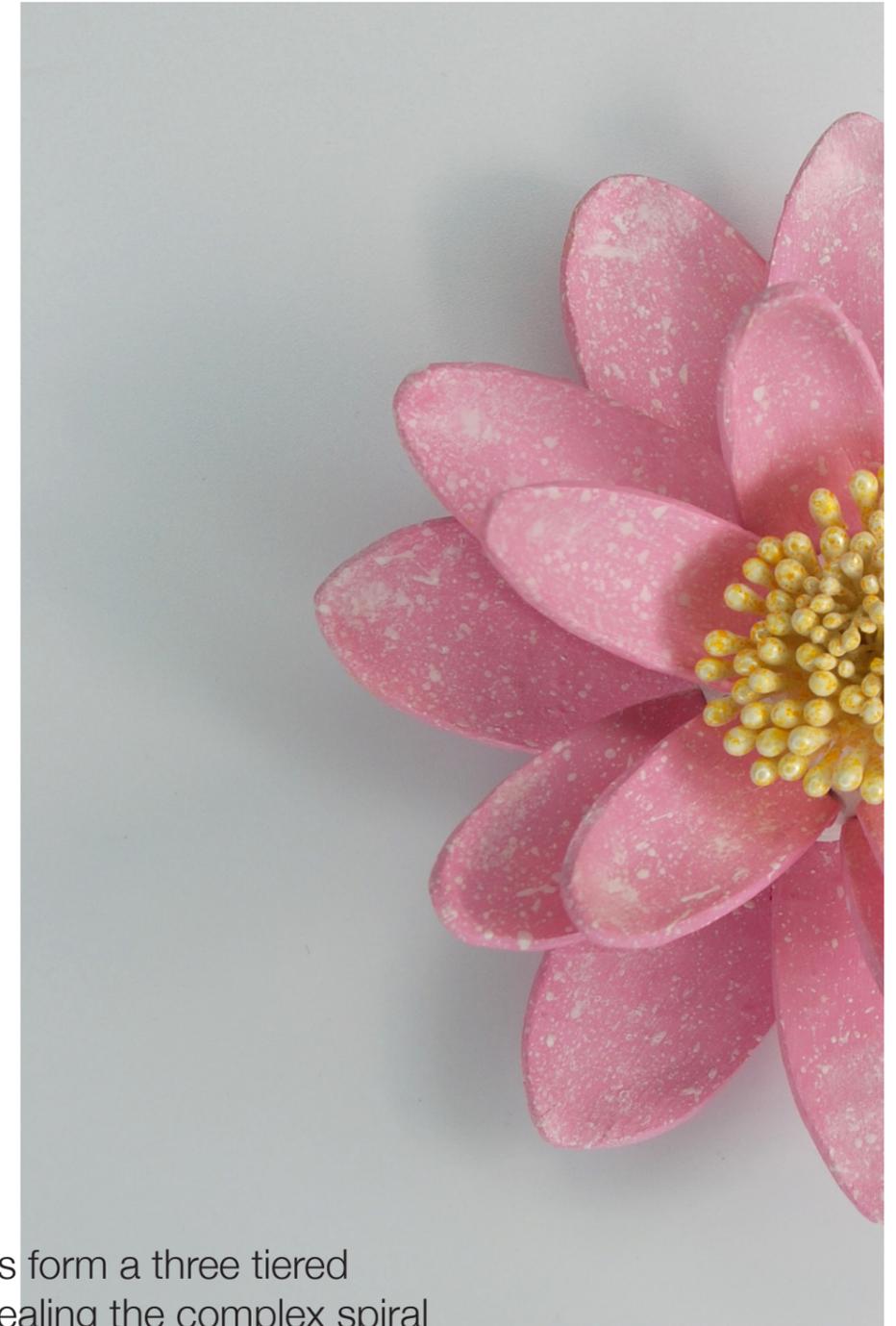
Decision making is a key cognitive and creative action, and is found in every element of the process - petal size, flower type and phyllotactic patterns. It contributes to a sense of ownership and identity



“Creativity and nature is what I love” (primary research respondent). The flowers can be disassembled and rebuilt as often as desired providing the connection with nature that the users value and lack



Complex spiral phyllotaxis pattern of the water lily, the most challenging of the three flowers



Twenty petals form a three tiered structure revealing the complex spiral pattern in action

Contextual Material



Collage of stand for the Therapy Expo, demonstrating my methods of deployment. The stand features a functional video of Blossom. A stop motion animation of flowers growing on front desk. Demonstrator models for hands-on assessment of the product. Key functions of Blossom are listed, directed at professionals. Link to functional video: <https://vimeo.com/558460208>