

## Person Centred Design

Engaging people with profound intellectual and multiple disabilities (PIMD) in the process of designing their garden space

### **Background**

In 2007, a garden space became available for re-development. It was to be used by a group of adults with profound intellectual and multiple disabilities attending Milparinka, an adult day support service. Milparinka is committed to a person centred philosophy, and therefore was keen to ensure that the re-development of the garden was driven “by the users for the users”. This was to ensure a match between the structures and activities the garden offered and the users’ needs and interests.

### **Existing garden**

The garden was a small fenced space accessed via two rooms that were used as “home base” rooms for people with high support needs. It had seats that had no back supports or arm rests to assist transfers, a couple of trees and uneven footpaths and areas of bark chips that regularly attracted the attention of people who like to self engage by chewing objects!

### **Exploring design considerations**

- **What did we already know about the people who would use the garden?**

Some people went to the existing garden to escape over-stimulating situations. Others enjoyed specific self initiated activities, such as ball games. The staff had collated records of people’s communication skills and communication supports. The people have unintentional, intentional informal or early symbolic communication skills. People’s files indicated that they were more actively engaged when activities and environments were sensory-focused to match their sensory preferences and skills. Support staff used this information to individualise their support to each person in all activities.

- **Initial design idea!**

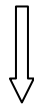
The support staff suggested a ‘sensory garden’. We decided to explore the literature. What is a sensory garden? All gardens stimulate the senses. The following highlights the key principles we used to define our garden space.

Paul Pagliano (2007) uses two terms “a generic term which is used to describe the multisensory nature of any environment and a specific term *Multisensory Environment* which is written in capitals (MSE). He describes the MSE as both a physical space and a process. “*A hybrid, multifunctional space allows sense stimulation to be purposefully engineered. Stimuli can be presented in isolation or in combination, intensified or reduced and shaped for passive or active interaction. Stimulation can therefore be planned to fit the unstable sense ability requirements of an individual with debilitating perceptual difficulties and /or profound disabilities, whether these are progressive, fluctuating, stable or regressive. The MSE as a process becomes an individual scaffold, specifically designed to more closely match the user’s current motivation, interests and leisure, relaxation, therapeutic and/or educational needs. This environmental support mechanism with its careful mix of constancy and change provides opportunity for the individual to gain control of their internal sensory experiences. Successful use of the MSE must be sensitive to the ongoing internal changes in the individual. It involves frequent*

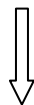
*monitoring, systematic evaluation and both short and long term adjustments of the external environment coupled with the use of highly specialised pedagogy.”* **The space is designed from the person out.**



Richard Hirstwood (2007) wrote “... *the word “studio” is an expression that more accurately reflects the varied needs of the space and helps to overcome the stigma of a room which has traditionally been seen as a place where children with profound and multiple disability go!*”. **It is a flexible space.** Usually a studio has key elements and then the artist adds to or manipulates the elements to express themselves through their art. (For example, a dedicated space for music, drama, dance, science etc, etc).



Robert Orr (2007) is quoted as saying ... “*A pox on Multisensory Rooms! It is **the skills and intuition of the carer which transforms the glitzy stimulating environment into a comprehensible chain of events***”. Susan Fowler (2008) wrote “*Proper training can enable the support person to capitalize on one of Multisensory Environments most unique and special features – that is: **they enable sensory experiences to be delivered in a structured and controlled manner***”.



Alison Shorrock (2007) presented a paper at the First Annual Multisensory Exploration Conference “Multisensory Environments big and small: Validating current practice” about Everyday Sensory Experiences (ESEs). “*What we learn about the supports require to assist a person to participate in a Multisensory Environment **is then transferred to everyday activities***”.

Support staff were already committed to using individualised supports in everyday activities. They embraced the idea of a space they could manipulate to provide optimum opportunities for each person to participate using their skills and interests. The “Studio Garden” concept captured the essence of this. We now needed the users to tell us what they wanted in the garden.

- **User Testing – designing for the individual by the individual. Engaging people with complex communication needs in the decision making process!**

The staff commenced creating a match between the client’s needs and interests and the garden design. The studio garden will have core fixed elements or structures. Staff can then create changes to the space by introducing a further range of elements that match the individual user’s interests and preferences.

User testing – using feedback from the users to select fixtures and activity resources

- October 2007 – March 2008 staff conducted off site user testing to evaluate people's responses to different garden experiences.
- Staff completed a User Questionnaire during each garden visit.
- The User Questionnaire was developed based on concepts and processes used by The Sensory Trust (UK) with their Sensory Mapping Data Collection Form. It documented the users' expressions of "like", "dislike" and the fixtures and activities they showed interest in.
- Repeated weekly visits were made to one garden site offering a diverse range of experiences. Repeated visits were made because people were often apprehensive about unfamiliar places. Repeated visits helped develop people's anticipation as familiarity grew. Over time a reduction in anxiety and demonstration of memory for previous positive interactive experiences was observed. People started to initiate more interaction with objects and activities in the garden.
- The User Questionnaire feedback was collated by Erinn Miller, the Manager of Communication and Participation at Milparinka. Mandy Williams, Consulting Occupational Therapist, then provided a sensory analysis of the results.
- The staff were then asked to use the collated feedback to make recommendations for both fixtures and equipment that would enable them to support people's interests.
- Draft designs were completed by Mandy and Erinn and submitted to staff for approval. The final plan was submitted to management for approval and allocation of funding.
- Re-development commenced July 2008

### **The new garden design**

- **Structure and purpose**

- All existing structures and bark chips removed.
- A level area was extended to increase the possibility of having small group activities.
- Handrails were added to provide support for people with subtle balance difficulties to confidently access the garden independently.
- Handrails have mounting plates to which screens are attached. The screens will separate 3 activity areas and assist with reducing distractions.
- Artificial turf replaced bark and bare soil areas. The turf will resolve the problem of maintenance related to water restrictions during drought periods and natural wear and tear.
- A small storage shed was installed to store containers of activities.

- A small alcove to create a place for people who become over stimulated. This space has bench seating.
- An over-head mounting system was installed in the small alcove to which items can be attached e.g. wind chimes, mobiles etc.
- A swing chair was installed.
- Suitable tables and chairs were purchased to use for meals related and table-top activities.
- **Activities**
  - Activity containers are stored in a small storage shed. Items purchased and used were selected based on individual needs and interests.
  - Mounted wall panels have interactive items that have the sensory qualities identified through user testing including – tactile panel, interactive music panel, visual – reflective items, interactive locks and doors. These panels are designed to be removable so that they can also be mounted indoors on walls or tables as required.
  - Mobile garden beds can be taken indoors in winter or removed to another garden area at the centre if space or reduced distractions are required.
  - Indoor activities can be moved out doors in suitable weather e.g. art, cooking, ball games, sensory focused drama.

The garden is currently under construction. People will be actively involved in shopping expeditions for equipment and making items such as textured sections for wall panels. The users and their support staff are closely watching and exploring the gradual changes to their immediate environment.

### Photos of some of the initial structural changes ...



**Original space with bark removed**



**Extending level surface area**



**Turf and handrails installed**



**Turf and extended level area with retaining wall**

## References

- Fowler, S (2008) *Multisensory Rooms*
- Hirstwood, R. (2007). *Breathe a new lease of life into your sensory room!*  
[www.multi-sensory-room.co.uk](http://www.multi-sensory-room.co.uk)
- Orr, R (2007) Conference proceedings - the First Annual Multisensory Exploration Conference "Multisensory Environments big and small: Validating current practice" Mayfair Conference Centre, London, 12<sup>th</sup> October 2007
- Pagliano, P.J. (2007 October). *What are Multisensory Environments?* Keynote Paper presented at the First Annual Multisensory Exploration Conference "Multisensory Environments big and small: Validating current practice" Mayfair Conference Centre, London, 12<sup>th</sup> October 2007.
- Sensory Mapping Data Collection Form  
Sensory Trust – [www.sensorytrust.org.uk](http://www.sensorytrust.org.uk)
- Shorrock, A (2007) *The ESE project*. A DVD presentation at the First Annual Multisensory Exploration Conference "Multisensory Environments big and small: Validating current practice" Mayfair Conference Centre, London, 12<sup>th</sup> October 2007.

## Supplier of interactive wall panels

- Technical Solutions.  
Technical Solutions will create a solution to suit the need.  
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