The argument for a ‘multi sensory room’ is that it is a place where we can increase or
decrease a sensory stimulus, in other words control experiences for the child or student who
has problems modulating the light, sound or tactile input.

Through careful and imaginative design, it is possible to create sensory spaces that offer a
wide range controllable of experiences outside. The open air induces sensory responses but
it is the concentration of different experiences that gives sensory designs their identity.

- Passive places, designed to be relaxing and comfortable.
- Stimulating spaces with varied sensory experiences
- Teaching spaces with exciting curriculum content
- Social spaces for meeting and interacting

The Sensory Trust explain ‘When planning for sensory interest it is important to decide
exactly what you want. There are three basic options:

**A sensory garden:** A self-contained area that concentrates a wide range of sensory
experiences. Such an area, if designed well, provides a valuable resource for a wide range of
uses, from education to recreation.

**A sensory trail:** The trail has similar objectives to the sensory garden in providing a range of
experiences but it has more association with movement. It can therefore have a direct
application to teaching orientation skills, for example through people learning to recognise
different sounds, textures and smells along the trail and gaining confidence in their own
abilities to interpret the environment and find their own way.

**Enriching the overall landscape:** Sites that are relatively diverse and easily accessible may
lend themselves to developing an overall theme of sensory interest rather than concentrating
on specific areas. It can also be argued that even sites that develop sensory gardens or trails
should have an overall aim of high interest throughout their grounds, even if this takes many
years to achieve.’
It is worth remembering that there are many sensations we experience that are not formally categorised as one of the five senses, for example gravity, temperature, change, space and enclosure. The following lists are intended to offer some ideas that highlight the many different sensory experiences.

**Looking, seeing**

- **Colour**: Plants offer a complete spectrum of colour with the added delight of changes throughout the different seasons. Consider flowers, leaves, bark, berries, lichens and mosses. In addition, single colour themed areas can be considered that can be used to explore moods and atmosphere. Hard materials can provide a richness of colours and textures (stone, old brick, gravel, slate) or simple materials can be used to create patterns of colour (mosaics, murals, paving). Also consider changes in appearance and colour of materials when wet and dry (pebbles in water).

- **Shape**: Most objects can be used although many natural materials are quite complex shapes. For simple, distinctive shapes consider; leaves (sycamore, beech, ash), fruits (apples, currants, rose hips), flowers (daisy, poppy, bell flowers), stems (bamboo canes, dead nettle - square stems), paving (hexagons, squares, triangles) and plant containers (round, square, rectangular).

- **Movement**: Can be stimulating or relaxing, depending on the source and setting. There are many ways of combining movement with sound. Consider; trees (aspen, willow, white poplar), grasses, mobiles, chimes, animals, water, moving sculptures. Locate some within reach so that people can activate them. Place wind-activated items in places likely to receive some breeze!

- **Contrast**: Particularly valuable for people with visual impairments who have some residual sight. Consider; hard surfaces and markings, kerbs and edgings, flowers, foliage, sculptures.

- **Patterns**: These can provide fascinating effects and can inspire art work. Regular patterns are provided by; brick work, paving, cobbles, fencing, dandelion clocks and pine cones and more random patterns by; bark (plane, birch, eucalyptus), variegated leaves, skeleton leaves.
Listening, hearing

Organisers of nature studies often find listening activities to be a good way of calming people and tuning them into their environment. Children often need to be encouraged to listen to sounds, especially to more subtle ones. Consider both sounds that occur naturally and those that can be activated by people. Natural sounds include; leaves rustling in the wind, birds singing, water trickling/dripping/splashing, rain on an overhead cover. Activated sounds include; splashing water, striking chimes and sound sculptures. Deaf people will be able to sense vibrations and percussive sounds and these can be provided through sculpture and features such as deer-scarers (Chinese tapping water features). “Sound fences”, activated by dragging a stick along a series of lengths of tubing or piping are melodious and fun.

Feeling, touching

The outdoors is full of different textures and people with visual impairments in particular rely on these to interpret the environment. Options include; rough surfaces (lichens, stone wall, bark); smooth (pebble, polished wood, leaves, flower petals); ridged (textured concrete, backs of leaves); hairy (animals, leaves such as Stachys, buds, grass); bumpy (cobbles, twigs). Also think of objects that illustrate shapes (circular flowers, cubic containers, oval fruits, triangular ivy leaves etc); weight (light bark, heavy clay etc.); temperature (sun-warmed water, cold shaded water; stone next to soil); wet and dry (moist and dry soil/sand, freshly shed leaves and older dry ones); contrasting densities (hard stone and soft moss).

Smelling

Although most attention has been given to scented plants there are many other materials that have distinctive and interesting smells. With plants, consider different types of scent: scents that fill the air and can be smelt without touching the plant (Mock orange - Philadelphus), some roses, winter honeysuckle, curry plant, cut grass, hay); intimate scents where the flowers need to be investigated (violet, primrose, some Narcissus); activated scents which are released when plant parts are crushed (most culinary herbs, scented geranium).

Another option is for people to try to identify the scents from different distinctive herbs, such as peppermint and apple mint, lemon thyme and curry plant. There can be interesting differences between people's abilities to detect the more subtle scents, such as violets and...
primroses, and in schools it can be a fun exercise to get children to run a survey of their class. Some plant scents can be a problem for people with asthma, particularly the more powerful scents, and those coupled with flowering and therefore pollen release.

Other options include a whole range of familiar smells (pond water, wood shavings, autumn leaves, cut grass). The effects of water on smells can be interesting (wet soil, stone, leaves).

**Tasting**

Taste can be a useful way of demonstrating where food comes from and showing the link between growing and eating. However, particularly with children, it is important to ensure that they remain cautious about unidentified plants and it is probably necessary to restrict the choice to those food plants that are clearly recognised, such as apples.

**Orientation, gravity and balance**

Aspects of path design, such as width, change in direction, branching, slopes and ability to see a destination or end point all influence speed of travel and sense of mystery and invitation. Therefore paths in sensory gardens and trails can be seen to have much more potential than simply providing direct access. Orientation skills may also be developed by providing things for people to stand on or climb up (logs, trees, platforms, bridges, stages) that test or develop balance and which act as markers in the landscape. In education programmes, the objective may be to introduce such basic concepts as up, down, high and low (this may be done by incorporating objects that can be repositioned such as hanging baskets and mobiles).

**Cause and effect**

A range of practical landscape features can be used to get people involved. For example, interactive sculptures on which people can pull levers, press switches or activate touch-sensitive pads to produce different effects. Other possibilities include gear wheels, pulleys, balances and water which moves through a series of pools or channels. Such features can be valuable for demonstrating cause and effect.

**Moods**

Some spaces are designed to be quiet and relaxing. Here the emphasis is on using a combination of sensory qualities to create a comfortable and calming environment. Some schools and residential units have reported that such environments are useful for counselling. There is also potential for exploring other types of space, for example through the use of shade and light, enclosure and sounds to explore other ‘moods’.
Sensory gardens are a great idea and there are many areas of a school or centre which could have improved gardens, but most of the latter do not take into account that in the near future everything might have to be moved. Things will need to be either portable, or at least movable, in the future and when designing sensory experiences outside many things are sunk into the ground or very permanent fixtures.

Sensory gardens appear to be geared very much toward the more high-dependancy children or students sensory experiences. We need to create areas where the students want to go, not taken or told to go. Some would disagree that students are not interested in plants, some are! But do we need other attractions to entice the student to experience the ‘great outdoors’.

So here are some ideas for all students considering not just sensory input, but social areas which have the attraction of being sensory, which range from ideas your fantastic art or DT staff could get students making to ideas which are a little more difficult but fantastic if we could make it happen.
The three pictures above are areas within a school which could be a lot more sensory. In one of my previous papers I have written about sensory journeys. Where am I going, have I arrived and what do I do now?

How do the above pathways help the students understand the journey? There could be more sensory clues. Here are a few ideas for you, most of which could be created in the schools art or DT departments.

The picture left and below show paths which are wonderful for wheelchairs.

The tactile experience through the chair could be fantastic and panels like this could be portable, as pictured on the next page.
These could be made or purchased from a sensory garden company, but you should be able to make these yourselves unless there is now some imaginative health and safety law which prohibits you from doing it!

They are varied trays with different tactile experiences from small rocks, pebble dash to sand. You need to consider the sound the materials make and the feeling, either through the feet or a wheelchair, of moving on these surfaces. Children and students need to experience different materials under their feet or wheelchair, because they are used to solid surfaces under their feet, not soft mud in a field, the squishy feel sand or the crunch of pebbles on the beach.

The ‘SketchUp’ pictures are not to scale, as the size and how the panels fit together would be up to the school designers. If they are to be portable you will need to consider the following.

- How do the panels attach without coming apart?
- What material will stand up to the wheels, feet and weather?
- Do you need small ramps on either end for wheelchairs?
- Do you need a handrail?
Mike Ayres makes by far the best tactile panels, here are his thought on tactile work.

‘Tactile experience is a fundamental part of your overall sensory experience of the environment you are in at that moment. In the early days of the creation of tactile panels, people questioned their need and stated that you could just as well go outside and touch natural materials and experience what’s around you. Yes; you can and should do all of these things, but they are not always available to everyone and do not often appear in abundance in built environments.

Tactile experience is particularly appropriate for people with learning difficulties and visual impairment, because they can act as very strong indicators and offer stimulation for communication and interactivity.

Also, why do we take holiday pictures, buy paintings and souvenirs? Because we want to remind ourselves of experiences and evoke emotions! This is exactly what tactile experiences can do. It acts as an exploration and enhances the understanding of the environment around you. As you develop, you build up an internal language for textures, as you do with all your senses. You learn about safe and dangerous tactile experiences through coming into contact with the materials around you. Heat can be a safe or dangerous experience, and how do you learn about that, how do you understand what is pleasant and
what will hurt?, by exploring and learning about the properties of materials within safe parameters.

This is partly what the creation of Tactile Murals are about, but they are also about giving a feeling to a building, allowing people to engage with their environment (feel the wall) and to create an art form that adds to the aesthetic value of the spaces you live, work and learn in.

Earlier I mentioned the language of texture; here are some words and comparisons that externalise that language. Rough and smooth, soft and hard, warm and cold, angular and curved, embossed and impressed, rigid and flexible, fine and coarse, linear and meandering, regular and random, absorbent and reflective. You get the idea!

These are all considerations when creating a mural, as well as overall shape, size, colour, safety of materials used, flow of movement, as you explore it and the space it fits into. Murals make a very strong statement when you walk into a space. If it is something that you can physically engage with, it will give you a much stronger personal link with it and children almost always engage with and remember the smaller things that they can physically experience.

Murals can also be very good visual and textural ‘wayfinders’ and signposts around buildings.

As well as continuing to create panels and individual murals and trails I am also researching and developing ideas on texture and colour for navigating around new and existing buildings, in ways that children and adults with learning difficulties can easily understand.

Mike Ayres

‘Tactile panels are a valuable addition to any tactile trails and pathways. Mike Ayres’ creations are not cheap, but they are strong and long lasting. The pictures above are all Mike Ayres Design tactile murals.

You could also make them yourselves and there are many materials you could use...

Square pictures from ‘Sensory Plus’
This was a nice idea for a tactile box which could be made. Different tactile panels are stored in a box but pulled out and used in a tray to keep them in place.
This is really good quality equipment from Sensory Plus and outdoor music would offer a wonderful alternative to the usual wind chimes we hear around schools.

There is the problem of portability with equipment like this, as is is says much of the framework needs to be cemented into the ground, however according to the manufacturers it may be possible to wall mount some of this equipment depending on what you choose.

http://www.sensoryplus.co.uk/products/outdoor-play
Do it yourself
This could be a very good space to create a outdoor sensory meeting place. The criteria I set for myself could apply to any outdoor space and it was as follows.

Can be used in most weathers
Students and children must want to go there
Used in students own time as a meeting place
It must be different to the rest of the school
It must belong to the students
It can be used for outdoor performance day and night
It can be used for outdoor games and sports
It must be sensory - vision, hearing, touch, taste, smell and movement.

Many children and students with additional needs do not get outdoors enough, due to many factors. I think students would love an outdoor area like this and it would be a fantastic sensory space. It could be visual, sound and tactile by using sails and outdoor audio visual equipment. It could also incorporate some of the ideas I have already mentioned previously in this document.
The canopy you see on the left is a wonderful sensory experience. It is white (washable) and lit with LED outdoor lighting.

The effect they get at night or dusk is the sails changing colour overhead. A fantastic visual experience. I also like the idea of having outdoor fun lighting here.

Pictured here is an ‘Underwater Light Starship’ a cheap visual effect which would look really great on the canopy at night. I also have a set of fantastic glowing balls which would be wonderful for outdoor ball games at night. You could also use the iON Party Starter, as I demonstrated on the course.

We may even be able to project stars onto the top of the sail.

I think a sound system built into the structure would be a great addition so that students could listen to music outside. A ‘sensory trolley’ could be used outside on dry evenings (with training and care).

What a wonderful sports arena!

There are many ideas which could be incorporated into a space like this most of which could be portable.
You may also wish to consider a willow hut, which is of a good quality is able to stand up to the great British weather. A great place to create an individualised, sensory space which will also accommodate wheelchair users.

Richard Hirstwood  
April 2015

References  
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Sensory Plus - http://www.sensoryplus.co.uk/products/outdoor-play  
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