DESIGNING A MULTISENSORY PLAYROOM FOR CHILDREN WITH AUTISM

Multi-Sensory Environments (MSEs) are designed with two goals in mind: to promote intellectual activity and to encourage relaxation.

Children’s moods are strongly affected by lighting; for some it provides a calming, soothing effect and for others it acts as a stimulant. Harsh lighting can often hurt the eyes of a person with autism. Flickering, humming lights can be very disorienting and sometimes painful. It’s often advised to use adjustable lighting to create a calming effect.

Certain light levels and colors can be beneficial and the ability to control visual stimuli within the space is important. Creating a sensory room can aid in stimulating, develop and balance a person’s sensory system. Sensory rooms can include: soothing music, vibrating cushions, fiber optics, mirror balls, bubble tubes, water beds, tactile walls, disco lights, projectors and equipment that is activated by switches, movement, sound or pressure, so that a child can learn about cause and effect.

Without Autism now affecting 1 in 110 children and 1 in 70 boys, it’s imperative that architects, interior designers and color professionals be aware of the specific design requirements for this growing population. Special consideration needs to be given when selecting colors and finishes, particularly for public spaces where children frequent such as playgrounds.

Autistic children frequently have difficulties with sensory integration, which are the senses that are experienced through sight, touch, sound, taste and smell. They rely on their visual senses to tell them what is happening since they often difficulty decoding verbal cues. Here’s another important fact that we need to keep in mind, when selecting color for children’s spaces. Researchers have found that autistic children’s eyes and brains (components of the eye) have changed due to chemical imbalances or neural deficiencies. Colors appear more vivid to autistic children. Of the autistic children tested, 85% saw colors with greater intensity than non-autistic children. Red for example, looks fluorescent and vibrates with intensity.

### Tactile Walls

A Multi-Sensory Environment is a dedicated space or room where sensory stimulation can be controlled (intensified or reduced), presented in isolation or combination, packaged for active or passive interaction, and matched to fit the perceived motivation, interests, leisure, relaxation, therapeutic and/or educational needs of the users.

1. **Lighting effects**: such as projectors with wheels that disburse light patterns on walls through the space.
2. **Tactile Experiences**: such as touching various, changing textures that are included within a tactile wall panel.
3. **Lighting effects and color**: such as the use of switches to allow the individual to control the items within their own environment, and toys that provide visual effects, vibrate, make noise, or have a tactile feel.
4. **Soft items on the floor such as mats, pillows, or beanbags.
5. **Tactile Experiences such as toughing various, changing textures that are included within a tactile wall panel.

#### Bubble Tubes and Lighting

People with Sensory Processing Disorder (SPD) get a positive response when watching bubble tubes in action, since they provide a tracking activity that helps to improve visual development, color recognition, visual perception and communications skills. The bubble tubes themselves can promote and enhance children’s level of relaxation, creating a calming effect.

#### Tactile Walls

The aim of tactile wall panels (commonly called bouncy boards) is to provide the users of the space with tactile stimulation, provide auditory stimulation, visual stimulation, to provide an object of interest that users can share with someone else, to motivate the person to explore, to provide space that users can express likes and dislikes to specific textures, and the opportunity to make choices about which wall to explore.

1. **Tactile Walls**: as in feeling different textures
2. **Movement**: as in moving objects, encouraging users to feel and touch it
3. **Scent**: different textures and colors
4. **Hearing**: listening to different objects moving within the board
5. **Smelling**: by incorporating a pocket which holds cotton wool with essential oils to the wall panel.

#### Tactile Wall Panels

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