Addressing issues in our client’s social, physical, and institutional environment to promote occupational performance and engagement is well established as an essential area of occupational therapy practice. As agents of change and experts of enabling occupations, occupational therapists strive to create healthy environments in which our clients may participate (CAOT, 2007; Townsend & Polatajko, 2007). For children, the school environment includes the classroom (lights, noise, temperature, etc.), schedule, activities, rules, policies, teachers, and peers. Although clinicians are frequently involved in advocating for changes to the physical and organizational environment to support learning for children with sensory processing differences, it is equally imperative to address the social environment.

Occupational therapists have a role in addressing and modifying the social environment to support learning for children with sensory processing differences, it is equally imperative to address the social environment. Occupational therapists have a role in addressing and modifying the social environment to support learning for children with sensory processing differences, it is equally imperative to address the social environment. Occupational therapists have a role in addressing and modifying the social environment to support learning for children with sensory processing differences, it is equally imperative to address the social environment.

Occupational therapists educate clients using experiential learning where clients learn through doing (Townsend & Polatajko, 2007). Experiential learning involves the learner in activities and is different from didactic learning, which involves learners as more passive recipients of information (Gentry, 1990). Simulation, a situation meant to imitate a real process, is a form of experiential learning that is widely used in occupational therapy (Table 1). Children who experience a first-hand simulation exposing them to the difficulties experienced by their peers with disabilities may develop a more positive attitude towards inclusion (Hutzler, Fliss-Douer, Avraham, Reiter, & Talmor, 2007). Additionally, individuals who participate in simulation activities are able to actively empathize with the experiences that they engage, observe the outcome, and recognize the implications of the experience (Ravenscroft, 1998).

<table>
<thead>
<tr>
<th>Simulations used in occupational therapy</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work and home environments</td>
<td>Client or occupational therapy student assessment and education</td>
</tr>
<tr>
<td>The Hearing Voices Workshop (Deegan, 1987)</td>
<td>To provide a subjective experience of auditory hallucinations</td>
</tr>
<tr>
<td>The Prevent Alcohol Risk Related Trauma in Youth (P.A.R.T.Y.) (Sunnybrook Woman’s, 1986)</td>
<td>Disability due to impaired driving prevention</td>
</tr>
</tbody>
</table>

Reframing sensory processing differences

Dunn (1999) describes a continuum of sensory responsiveness, where the nervous system of individuals on one end of the continuum require excessive sensory input in order to be activated (high threshold), while those on the other end of the continuum...
respond too easily and frequently to stimuli (low threshold). Occupational therapists often identify sensory processing differences in children diagnosed with autism spectrum disorder, children exposed to drugs and alcohol while in utero, and in children with attention deficit hyperactivity disorder, learning disabilities, and/or cognitive impairments. Children with sensory processing differences may experience difficulty with tasks requiring attention and concentration, display poor self control, low self esteem, and be challenged by handwriting and other academic tasks that require motor planning or coordination. These issues may contribute to ineffective interactions within the learning and social environments (Ayres, 1979).

Schwab (n.d.) proposed a process of reframing that involves shifting the focus from the child with the sensory processing differences onto the child’s environment. By reframing the focus onto the environment, caregivers and others in the child’s social environment (such as the child’s peers and youth leaders) are able to create environments that meet the child’s needs. However, in order for people within the social environments of children with sensory processing differences to provide supportive environments, they must have an appreciation of the sensory processing experience of these children. Thus, a workshop that included simulation was created.

The sensory processing workshop
A sensory processing workshop, intended to contribute to the development of supportive school and recreational environments, was developed and has been successfully conducted by several occupational therapists over the past 15 years. The workshop includes three components: a didactic portion, a simulation experience, and a debriefing session.

a. The presentation
The didactic component provides a basic education in sensory processing and includes an overview of sensory input through the visual, olfactory, gustatory, auditory, tactile, kinesthetic, and proprioceptive systems. The presentation emphasizes the process through which incoming sensory information is sorted, interpreted, and responded to, by the central nervous system (CNS). The presenters highlight how the misinterpretation of sensory information by an impaired CNS may lead to a response or behaviour that seems inappropriate to others in the environment (Schwab, n.d.). Examples and case studies are often used to illustrate this point (Example One).

b. The simulation
Building on the work of Belton (personal communication, March 20, 2009), the sensory simulation component of the workshops was originally created by Schwab in the 1980s and has since been modified and used by several of the authors. The simulation portion begins by asking participants to complete the Sensory Preferences checklist (Williams & Shellenberger, 1996). Completion of this checklist provides a bridge to the presentation component in which participants recognize their own sensory preferences. Following this activity, each participant receives a variety of items to wear or use while performing math or spelling tasks. The simulation provides participants with an opportunity to experience attempting to complete an academic task while responding to sensory information that is distracting, confusing, or inaccurate. Other examples of simulation activities, and the sensory response that the activity is intended to simulate, are presented in Table 2.

<table>
<thead>
<tr>
<th>Examples of simulation activities</th>
<th>Simulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tissue paper hats that surround the ears</td>
<td>Auditory over-responsiveness</td>
</tr>
<tr>
<td>Pieces of tinsel placed around the neck and ankles</td>
<td>Tactile over-responsiveness</td>
</tr>
<tr>
<td>Mitts used on the hand for writing</td>
<td>Tactile under-responsiveness</td>
</tr>
<tr>
<td>Light pencil crayons used on dark construction paper for writing</td>
<td>Tactile under-responsiveness and diminished kinaesthetic awareness</td>
</tr>
<tr>
<td>Perfume infused paper</td>
<td>Olfactory over-responsiveness</td>
</tr>
<tr>
<td>Noise such as a radio playing static loudly in the background</td>
<td>Auditory over-responsiveness</td>
</tr>
</tbody>
</table>

Example One
Peter is a six year old child who has difficulty recognizing the intensity of tactile input (over responsiveness). Wanting to get his attention, Jason reaches out and places a hand on his back. Peter’s misinterprets this touch as a rough push. Peter responds by pushing Jason back.
c. The debrief
The debriefing component of the workshop aims to highlight the insights gained through the workshop. Participants discuss their affective reaction to the simulation experience and are asked to reflect on their past reactions to observed behaviours in children with sensory processing differences, and how the awareness gained through the workshop may impact their future interactions with these children.

Conclusion
When peers and teachers develop increased empathy and inclusionary attitudes, it is likely that they will behave in a way that will result in supportive environments for individuals with sensory processing differences. With knowledge of sensory processing theory, an understanding of the occupation-based issues experienced by children with sensory processing differences, and an emphasis on creating healthy environments to promote full participation, occupational therapists are well-positioned to engage others in experiential learning experiences. By facilitating simulation experiences to increase awareness and empathy within the social and educational environment of the child with sensory processing differences as described in this paper, or developing similar simulation experiences, occupational therapists can promote and contribute to the development of these supportive and enabling environments.

References