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Highlighting Tactile and Olfactory Clues: Healthy Environments for the Deaf-Blind Students

Abstract

For the deaf-blind population, after we review the five senses, the tactile and olfactory senses (touch and smell) are the only clues that can reasonably give an idea of the world around them. When we look at communication, Braille seems to be the only way of ‘reading’ the surroundings. This technology, invented by Louis Braille in 1829, uses a series of six raised dots to spell out the letters of this alphabet (Hampshire 5). Seemingly helpful, Braille is only used by a small margin of the blind population, 10-15%, due to the stigma associated with it and the inherent difficulties of learning the language if not presented early in life (Hampshire 13). Since Braille is not an effective way of feeling the world around them, what options does the deaf-blind population have? Weber tells us that the extremities, along with the lips, are the most sensitive parts of the body when it comes to touch (36). It stands to reason then, that making full use of the sensitive fingertips to feel the world is the best option. This was the premise of Braille’s work; however, the language was limited to those who understood it. Instead, the use of tactile clues, such as textures and floor surface variations, can familiarize a deaf-blind person with his or her environment. These materials can establish a cognitive map. This is not created using eyesight like a person with full sensory abilities, rather by memorization of places and materials previously visited (Hjelmquist and Nilsson). Temperature too can enhance the cognitive map of an individual. This variation in temperature can come from a cold windowpane or a warm light fixture. Perhaps the most neglected of the tactile sensations is vibration, most notably from music. As people with full sensory abilities, we tend to ‘listen’ with our ears, but what we don’t realize is that we also do so with our bodies. Darrow explains, ‘Analyses of the Deaf participants’ responses indicate that timbre, texture and rhythm are perhaps the musical elements most influential in transmitting emotion to persons with a hearing loss (2).’ For this reason, vibrotactile stimulation should be incorporated into the building.

All of the above are examples of tactile stimulation. While this is an extremely necessary part of everyday life for a deaf-blind person, olfactory stimulation must also be considered. Odors are the longest lasting memory of a place that we can carry (Beauchamp 153-4). The nose reminds the eyes. For this reason, scent should also be a critical part of the environment for a deaf-blind person. It can remind them of their specific room or of a person which they are familiar. These scents can have different effects on people, ranging from refreshment to concentration, and can be introduced in entrances, hallways or bathrooms (Baigelman and Wydra 21). The result of this semester will be a sensitive generalization on how to incorporate tactile and olfactory clues into the built environment supporting the deaf-blind students.