Idaho Project for Children and Youth with Deaf-Blindness

Fact Sheet

ABOUT TOUCH

As you read each of the following facts about the sense of touch, consider a child who is Deaf-Blind. Why is this fact important to know? How might we make use of this fact when we are planning activities? What significance might this fact have when teaching a child to communicate? What difference might it make to how we teach a child to access his/her environment, explore space, or find something?

Facts about touch that should be considered as we teach children who are Deaf-Blind:

♦ In the embryo, touch is the very first sense to emerge.

♦ Although not fully developed at birth, the sense of touch is one of a baby's most advanced abilities….more so than sight, hearing or taste.

♦ Early touch experiences will mold later tactile sensitivity, motor skills, understanding of the physical world around, and will impact health and emotional well-being.

♦ Touch includes not one, but four different sensory abilities, each having their own neural pathways:
  (a) cutaneous sensation-skin touching something
  (b) temperature sensitivity
  (c) pain
  (d) proprioception….the ability that allows us to determine where we are in space (via muscles, tendons, joints, and the skin).

♦ Sometimes, these may combine. An example, is a child holding an ice-cold teething ring feels the "hardness" sensation as well as the "coldness" of the ring.

♦ Proprioception allows us to relate to the space around us. For instance, it allows us to know whether our arms or legs are crossed, whether we are walking up or down a slope-even with our eyes closed.

♦ The REAL ability to feel is not in the skin etc., but in the two strips of "somatosensory" cortex-one on each side of the brain.

♦ The two "strips" combined have a "map" of the person's body surface-the strip on the right side of the brain has a left-body surface map and vice versa.

♦ The amount of space allocated for various body surfaces depends on the sensitivity of the area….lips and fingertips taking up a disproportionate amount of space.

♦ Touch develops in a head-to-toe sequence-and is why, early on, the mouth is used to explore and tactilely discriminate, not just to taste! A baby can actually transfer tactile to visual information and visually pick the object he/she has been exploring with the tongue. Conversely, the hands do not work this way early on….and a baby will be unable to visually distinguish something he/she has touched only with the hands.

♦ Hand preference changes and develops over the first two years. Object discrimination is usually best done with the left hand (regardless of whether young or old). This means that even if we are right-handed, we generally use our right brain (or left hand) to understand shapes and their properties.

♦ As hand-preference is emerging, a toddler's left brain becomes increasingly involved with language development.

♦ Generally, newborn girls are more sensitive to touch and this gender-related characteristic continues into adult life.

♦ Touch sensitivity in boys is more "lateralized"….that is, their non-dominate side (usually the left) is more touch sensitive than their dominant side; girls are more symmetrical in their touch sensitivity.

♦ The early "critical" period is not the final chance for plasticity in this system; experience continues to fine-tune perceptual maps throughout life.

Derived from: Eliot, L. (1999)
What's going on in there? How the brain and mind develop in the in the first five years of life. Bantam Books

Information Kindly Supplied by the North Dakota Deaf-Blind Services Project

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