

Touch Activity

Materials:

2 unwound paperclips/experimenter
Pennies
Nickel
Touchbox with fun items inside to guess

Experiment:

Part 1: Heads or Tails?

Ask your partner to place a penny – heads up or heads down – on your fingertip.

Without looking, can you tell which side of the penny you are touching?

Now let your partner move the penny across your fingertip.

Does this make a difference?

What happens when you move the penny across areas of your hand and arm?

Discussion Questions to ask:

When was it the easiest to identify heads and tails on the penny?

Part 2:

There is one nickel mixed with the other coins in the pouch.

Reach into the pouch

without looking at the coins.

How did you determine which one was the nickel?

What does this experiment tell you about how your touch receptors work?

Answer: there are 4 types of type receptors (mechanoreceptors) some receptors are for pressure, some for texture (so they need to slide to feel objects).

In addition to touch, there are pain, temperature and receptors that tell your body where your limbs are (proprioceptors).

Part 3:

Have your partner close their eyes. Use the 2 paperclips to touch your partner's hand with 1 or 2 touches and have them guess (be sure not to just do 2 touches or they'll predict what you're doing.) Have the paperclips come closer together. What makes it harder to guess if its 1 or 2 touches?

Repeat trying the back of the neck. Which area of the body is it harder to distinguish 1 from 2 touches? why?

Answer: your hands are SO important for survival so there are more neurons in your hand than the back of your neck. So, if you touch with the paperclips close together on

Touch Activity

your hand, you're turning on 2 neurons where as in the back of the neck, you only turn on 1 neuron so your brain is getting a "1 touch" message from the back of your neck.

Primary sensory cortex,
cortical homunculus, somatosensory system, brain topographic map