

Experiment Getting to the Point Making Skin Sensory Comparisons

Questions:

Have you ever noticed that some areas of your skin are more sensitive to the touch than other parts? What could account for such differences?

Can you determine differences in skin sensitivity by testing for the location of receptors in the skin?

Make a Hypothesis:

Predict which skin areas are most sensitive to touch.

Experiment:

Work in groups of two or three, you will need to have:

Subject: volunteer his/her skin for the sensitivity tests.

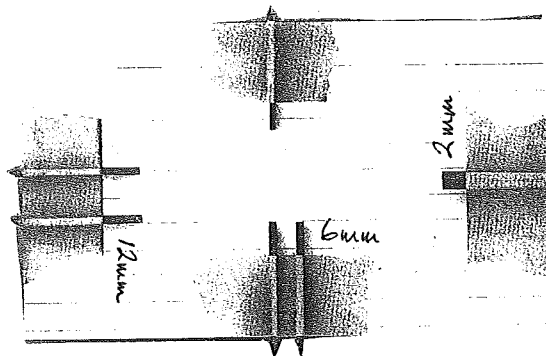
Measurer: touches a prepared card to the subject's skin surfaces.

Recorder: Records plus or minus signs onto the data table for all six areas of the skin.

* in groups with only two members the measurer would also record the data.

Materials:

tape
toothpicks *cut in half*
paper
metric ruler
blindfolds
index card



Procedure:

- All teams use the following eight skin areas to touch for sensitivity:
 - chin
 - forearm
 - back of the hand
 - back of the neck
 - palm of the hand
 - index finger
 - thumb tip
 - calf of leg
- Tape pairs of toothpicks onto the index card so that they are 2mm, 6mm, and 12mm apart. Make sure to label each pair of toothpicks. Tape a single toothpick to one end of the card.
- Prepare a data table with the eight skin areas listed down the left hand column and the three toothpick distances across the top.
- Blindfold the subject and then gently touch the subject's chin with one of the pairs of toothpicks. Make sure the two points touch the skin at the same time. Ask if the subject feels one point or two.
- If the subject feels two points, record a plus in the data table. If s/he feels only one, record a minus.