



Proprioception (Rubber Hand)

Amount of time Demo takes: 3-4 minutes

Try this in the classroom!

Lesson's Big Idea

- The brain makes a map of the human body.
- The brain map can be tricked into adding something else to the map by adding visual and physical stimulus.

Materials

- Cardboard divider
- Rubber hand
- Two feathers
- Table
- Chair

SAFETY! Safe demo!

Background Information

- Brain map-The brain stores a map of the body in a part called the parietal lobe. It tells you the location of all the parts of your body by telling you where all of your nerves are.

Setup Instructions

1. Set the chair so the participant can place their left arm on the table.
2. Set cardboard divider so the participant can not see the his/her left arm.

Instructional Procedure

1. Have the participant sit in the chair with their left arm on the table.
2. Use the cardboard divider to prevent them from seeing their left arm.
3. Place the rubber hand next to the divider, in plain view for the participant.
4. Use the feathers to touch the participant's hand and the rubber hand at

the same time.

5. After one to two minutes, the participant may feel some sensation coming from the rubber hand instead of their own.

Assessment Questions

- Did the sensation feel the same in the rubber hand?
 - Yes
- Did you stop feeling the rubber hand as soon as the experiment ended, or did it take a couple of seconds?
 - It took a couple of seconds to stop feeling the rubber hand

Careers & Real World Applications

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- Careers:
 - Psychologist
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Clean Up

- Pack up table, cardboard divider, hand, feathers, and chair.

References

- <https://www.youtube.com/watch?v=TCQbygjG0RU>

Related Next Generation Science Standards

- 6-8
 - MS-LS1 From Molecules to Organisms: Structures and Processes
- 9-12
 - HS-LS1 From Molecules to Organisms: Structures and Processes