As you may know, the brain naturally generates electrical signals as we do basic tasks such as thinking and working. We measure this activity in the form of event-related potentials or ERPs. We can “see” these ERPs—or the brain’s responses to sights and sounds—using sensors or electrodes that rest on the surface of the scalp as children participate in our tasks.

- Children will wear an ERP sensor cap while playing games that involve paying close attention while they look at simple pictures (fish, trees, hearts).
- The cap fits comfortably and snugly on the head like a winter hat or a swimming cap. Each cap has 32 tiny sensors that rest on the child’s head. Members of our research team will place the cap on the child’s head and will adjust it to make sure that it fits.
- Once the cap is on, children will be playing computer games that involve doing simple tasks like remembering a string of words or pushing buttons when certain pictures appear. These games are take about 45 minutes to complete.

**Applying the ERP Cap**

1. Fit the cap
2. Apply gel to each sensor
3. Place electrodes & connect them to the computer

- A small amount of water-based gel is carefully applied to each sensor to better record brain activity.
- The procedure is completely non-invasive—all recording is done on the surface of the head.
- All materials that come into contact with each child have been thoroughly cleaned and sterilized.
- The sensors simply record the child’s brain activity as they are naturally occurring.
- If the child wants to stop at any point or does not want to wear the cap, that’s okay! We can stop the study at any point.

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**Additional questions about the project?**
**Please contact us!**

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