

Consent Form for Participation in Research

Study Title: Effect of Haptic Input on Story Reading for Children

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Purpose of this Study

The purpose of the study is to investigate whether children of age 4 - 9 years old can relate haptic stimulation in the form of vibration on the hands to verbal materials, and whether haptic sensations paired with verbal descriptions affect children's responses to story reading, including understanding, recall and preference.

Procedures

Your child will read a story on a tablet computer covered with a sleeve that provides haptic feedback. The sleeve can generate gentle and short vibrations (similar to a cell phone), which the child subjects can feel in their hands. Your child will read verbal materials, such as short stories, that pair words and phrases with vibratory patterns. For example, while reading a story in which there is light rain, your child may feel a vibratory pattern intended to resemble the feeling of rain. After feeling vibrations, your child will complete simple tasks, such as naming the sensation suggested by a vibration or comparing vibrations to one another; or, after reading a story with key words accompanied by vibrations, your child may retell the story, indicate his or her liking for it, or answer questions about its content. We will audio record your child retelling the story so that we, and annotators under our direction, may listen to and transcribe the story.

An adult must accompany your child and remain on site during your child's participation.

The study will take place at the Collaborative Innovation Center on the Carnegie Mellon campus. We expect the time to complete the scheduled activities will be about one hour (which includes a break between activities for snack and/or play), but your child may ask to stop at any time if he or she feels tired, bored, or frustrated.

Participant Requirements

Any child who is 4 – 9 years old and accompanied by an adult can participate in this study.

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Risks

The risks and discomfort associated with participation in this study are no greater than those ordinarily encountered in daily life. The study will require your child to feel vibrations on the skin. Exposure to vibration can sometimes lead to short-term adaptation, such that vibratory sensitivity is temporarily reduced at the exposed frequency and site. There is no long-term risk from such exposure, as recovery occurs within a few minutes. The vibrations may also produce a tickling sensation of low intensity. There will be a risk of a breach of confidentiality as we will gather your email address. However, all email addresses will be stored in a password-protected account that only project members will have access to.

Benefits

There may be no personal benefit from your participation in the study but the goal of this research is to advance our knowledge of the perceptual and cognitive mechanisms and constraints involved in perceiving vibratory displays. It may lead to new entertainment and educational technologies and may be useful to other haptic (touch) applications.

Compensation & Costs

Child participants will receive \$10/hour. We expect participation to last about one hour; additional time will be pro-rated. You will also be provided with 2 hours of free parking on campus. There is no cost if your child participates in this study.

Confidentiality

By participating in the study, you understand and agree that Carnegie Mellon may be required to disclose your consent form, data and other personally identifiable information as required by law, regulation, subpoena or court order. Otherwise, your confidentiality will be maintained in the following manner:

Your data and consent form will be kept separate. Your consent form will be stored in a locked location on Carnegie Mellon property and will not be disclosed to third parties. By participating, you understand and agree that the data and information gathered during this study may be used by Carnegie Mellon and published and/or disclosed by Carnegie Mellon to others outside of Carnegie Mellon. However, your name, address, contact information and other direct personal identifiers in your consent form will not be mentioned in any such publication or dissemination of the research data and/or results by Carnegie Mellon.

The researchers will take the following steps to protect participants' identities during this study: (1) The researchers will record any data collected during the study by number, not by name; (2) Any original recordings or data files will be stored in a secured location accessed only by authorized researchers.

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Optional Permission

I understand that the researchers may want to use a short portion of audio recording for illustrative reasons in presentations of this work for scientific or educational purposes. I give my permission to do so provided that my child's name will not appear.

YES NO (Please initial here _____)

I understand that the researchers also want to use the audio recording as data for a project in child speech recognition (HS13-104, Child Character Interaction). The audio will be broken down into individual sounds and combined with the speech of many other children to build a speech model. I give my permission to do so provided that no identifying information other than gender and age will be transferred with the audio to the other project.

YES NO (Please initial here _____)

Rights

Your participation is voluntary. You are free to stop your participation at any point. Refusal to participate or withdrawal of your consent or discontinued participation in the study will not result in any penalty or loss of benefits or rights to which you might otherwise be entitled. The Principal Investigator may at his/her discretion remove you from the study for any of a number of reasons. In such an event, you will not suffer any penalty or loss of benefits or rights which you might otherwise be entitled.

Right to Ask Questions & Contact Information

If you have any questions about this study, you should feel free to ask them now. If you have questions later, desire additional information, or wish to withdraw your participation please contact the Principal Investigator by mail, phone or e-mail in accordance with the contact information listed on the first page of this consent.

If you have questions pertaining to your rights as a research participant; or to report concerns to this study, you should contact the Office of Research Integrity and Compliance at Carnegie Mellon University. Email: irb-review@andrew.cmu.edu . Phone: 412-268-1901 or 412-268-5460.

Conflict of Interest

The goal of the research is to develop and test advanced interaction technologies. The PI and a number of the co-investigators are employed by the Cooperating Institution named below (Disney Research, Pittsburgh). As Disney is also interested in advanced interaction technologies, they have an interest in the scientific outcomes of the research. If successful, the results of this research will be published in an academic conference or journal.

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Voluntary Consent

By signing below, you agree that the above information has been explained to you and all your current questions have been answered. You understand that you may ask questions about any aspect of this research study during the course of the study and in the future. By signing this form, you agree that your child may participate in this research study.

PARENT SIGNATURE

DATE

PRINT THE CHILD'S NAME, **GENDER and AGE**

I certify that I have explained the nature and purpose of this research study to the above individual and I have discussed the potential benefits and possible risks of participation in the study. Any questions the individual has about this study have been answered and any future questions will be answered as they arise.

SIGNATURE OF PERSON OBTAINING CONSENT

DATE