

CONSENT TO PARTICIPATE IN NON-BIOMEDICAL RESEARCH

Constrained Sets in App Inventor

Your child is asked to participate in a research study conducted by Hal Abelson PhD, Evan Patton PhD, Mike Tissenbaum PhD, and Lynda Tang B.S., from the Electrical Engineering and Computer Science department at the Massachusetts Institute of Technology (M.I.T.). The results of this study will contribute to Lynda Tang's Master's thesis. Your child was selected as a possible participant in this study because he/she indicated interest in being part of the HSSP course Creating Mobile Apps with MIT App Inventor. You should read the information below, and ask questions about anything you do not understand, before deciding whether or not your child should participate.

• PARTICIPATION AND WITHDRAWAL

Your child's participation in this study is completely voluntary and they are free to choose whether to be in it or not. If your child chooses to be in this study, he/she may subsequently withdraw from it at any time without penalty or consequences of any kind. The investigator may withdraw your child from this research if circumstances arise which warrant doing so.

• PURPOSE OF THE STUDY

This study is meant to explore the effects of limited component and block sets in App Inventor on the learning process and behavior of new users. It is our hope that this work will enable youth to explore App Inventor in new ways and support us in refining the supports we provide to new users of App Inventor.

• PROCEDURES

If your child volunteers to participate in this study, we would ask him/her to do one or more of the following things:

- Participate in six ninety minute weekly sessions and learn about App Inventor. In the first 3, your child will learn about App Inventor through a series of tutorials. In the last 3, your child will design and create their own App Inventor project and present it to the rest of the class.
- Take surveys about his/her App Inventor learning experience

- Discuss his/her past experience with programming/using block-based languages

As part of this study, your child will be assigned randomly to one of two groups. While your child may have a slightly different App Inventor interface than their peers, all the participants will be treated the same and will explore the same topics.

- **POTENTIAL RISKS AND DISCOMFORTS**

We do not believe there are any significant risks or discomforts in participating in this workshop. We will make sure that the personal information provided is not shared, nor will we use your child's name in reference to this.

- **POTENTIAL BENEFITS**

We believe that your child may learn computational thinking concepts, which could help them with their studies. However, we cannot promise any direct benefits directly associated with participation in this study.

Throughout this workshop, subjects will gain a better understanding of App Inventor and may improve their computational thinking skills. We hope that this research will contribute and give us a better understanding of how constrained environments affect learning in blocks-based programming environments.

- **PAYMENT FOR PARTICIPATION**

There will be no payment for participation in the study.

- **CONFIDENTIALITY**

Any information that is obtained in connection with this study and that can be identified with your child will remain confidential and will be disclosed only with your permission or as required by law. In addition, your child's information may be reviewed by authorized MIT representatives to ensure compliance with MIT policies and procedures.

Audio and video recordings will be conducted during this workshop. Subjects have the right to request these tapes for review, and they will be erased after the thesis is submitted.

For dissemination purposes such as publications, technical reports and conference presentations, all names will be given a pseudonym/ID number and other characteristics that may identify your child will be changed.

All research data will be stored in the researchers' office at MIT in a locked storage locker, or secure digital storage that is password protected. Data will only be accessible by authorized personnel and will be deleted a year after thesis completion.

- **IDENTIFICATION OF INVESTIGATORS**

If you have any questions or concerns about the research, please feel free to contact Hal Abelson at 1-617-253-5856, or Lynda Tang at 1-408-829-0623 or during one of the sessions. You may also call the Chairman of the Committee on the Use of Humans as Experimental Subjects at M.I.T. at 1-617-253 6787 if you feel you have been treated unfairly.

- **EMERGENCY CARE AND COMPENSATION FOR INJURY**

If your child feels that they have suffered an injury, which may include emotional trauma, as a result of participating in this study, please contact the person in charge of the study as soon as possible.

In the event your child suffers such an injury, M.I.T. may provide itself, or arrange for the provision of, emergency transport or medical treatment, including emergency treatment and follow-up care, as needed, or reimbursement for such medical services. M.I.T. does not provide any other form of compensation for injury. In any case, neither the offer to provide medical assistance, nor the actual provision of medical services shall be considered an admission of fault or acceptance of liability. Questions regarding this policy may be directed to MIT's Insurance Office, (617) 253-2823. Your insurance carrier may be billed for the cost of emergency transport or medical treatment, if such services are determined not to be directly related to your child's participation in this study.

- **RIGHTS OF RESEARCH SUBJECTS**

Your child is not waiving any legal claims, rights or remedies because of their participation in this research study. If you or your child feels that they have been treated unfairly, or you or your child have questions regarding your child's rights as a research subject, you may contact the Chairman of the Committee on the Use of Humans as Experimental Subjects, M.I.T., Room E25-143B, 77 Massachusetts Ave, Cambridge, MA 02139, phone 1-617-253 6787.

SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to allow my child to participate in this study. I have been given a copy of this form.

___ The general study, which includes:

- Answering oral and written questions about computational thinking and programming concepts.
- Using a computer program that was designed to teach programming and IoT concepts.
- Your child providing their opinion about the computer program design, interface, or content.
- Your child discussing their current or previous programming experiences.

___ Being audio and video recorded during classroom programming lessons and in after-class group interviews

Name of Subject

Name of Legal Representative (if applicable)

Signature of Subject or Legal Representative

Date

SIGNATURE OF PERSON OBTAINING INFORMED CONSENT

In my judgment the subject is voluntarily and knowingly giving informed consent and possesses the legal capacity to give informed consent to participate in this research study.

Name of Person Obtaining Informed Consent

Signature of Person Obtaining Informed Consent

Date