Informed Consent Agreement for Participation in a Research Study

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Title of Research Study: Gathering Data about Errors Made by Beginning Programmers

Introduction:
You are being asked to participate in a research study. Before you agree, however, you must be fully informed about the purpose of the study, the procedures to be followed, and any benefits, risks or discomfort that you may experience as a result of your participation. This form presents information about the study so that you may make a fully informed decision regarding your participation.

Purpose of the study:
This research project will help DrRacket developers understand the programming errors that DrRacket users make and the steps they take to eliminate them. Our long-term goal is to improve the quality of the error messages of DrRacket, as well as to improve the curriculum overall. We are looking for (1) patterns in the kinds of errors that users make, (2) patterns in the edits made in response to different kinds of errors, and (3) indicators of how many tries it takes a user to correct a programming error.

Procedures to be followed:
You must be 18 years or older to participate in this study. The version of DrRacket used in this course can create a record of the contents of your program as you are writing it. If you agree to participate in this study, we will instruct you to install the recording feature and to turn it on. Thereafter, DrRacket will send content of your file and some identifying information (so we can correlate your files across sessions) to a secure research server at WPI. We will also ask you to complete a brief background survey. You may also be invited to participate in a short "talk aloud" coding session in the presence of an experimenter, which will be verbally recorded.

Risks to study participants:
The main risk is that you may be uncomfortable with us having a log of your programs and progress over the course. We minimize this risk by restricting data access to the investigators. In particular, your course instructor will not have access to the data.

Benefits to research participants and others:
Your participation in this research will not affect your grade in any way. Your participation in this study may lead to improved error handling in DrRacket, which will benefit all those who use it to learn programming.

Record keeping and confidentiality:
Only members of the research staff will be involved in analyzing these files. The course professor will not know whether you are participating or not. The content of the recording will not affect your grade in any way. Neither your participation nor your identity will be revealed in any publication resulting from this study. If we use any excerpts from your programs in any publication that result from this research, we will remove any identifying information that may be present in them (such as your name) prior. Data obtained in this experiment will become the property of the investigators and WPI. The collected recordings will be saved in a password-protected account at WPI. If you choose not to participate, no records will be collected.

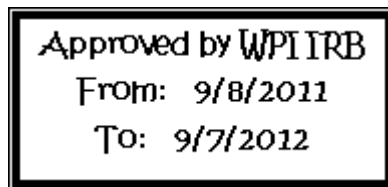**For more information about this research or about the rights of research participants, contact:**
If you have questions about this study, contact Professor Kathi Fisler (kfisler@cs.wpi.edu). You may also contact the chair of the WPI Institutional Review Board (Prof. Kent Rissmiller, Tel. 508-831-5019, Email: kjr@wpi.edu) or WPI's University Compliance Officer (Michael J. Curley, Tel. 508-831-6919).

Your participation in this research is voluntary. Your refusal to participate will not result in any penalty to you or any loss of benefits to which you may otherwise be entitled. You may decide to stop participating in the research at any time without penalty or loss of other benefits. You can stop or resume the recording of data at anytime within DrRacket by clicking on the "Logging Tool" tab of the preference dialog box. If you withdraw from the study, you may ask us to delete data already collected about you (send an email to Professor Kathi Fisler, kfisler@cs.wpi.edu). The project investigators retain the right to cancel or postpone the experimental procedures at any time they see fit.

By signing below, you acknowledge that you have been informed about and consent to be a participant in the study described above. Make sure that your questions are answered to your satisfaction before signing. You are entitled to retain a copy of this consent agreement.

_____   Date: _____
Study Participant Signature

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Approved by WPI IRB
From:  9/8/2011
To:  9/7/2012
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_____
Study Participant Name (Please print)

_____   Date: _____
Signature of Person who explained this study