A2: Formative Study Instruments &

Literature Review

**Individual assignment**

**Due:** Monday, 22 January before 6:00pm

**Submit to**: Blackboard

**Worth:** 10% of your final grade

To make your project successful, you will need to do background and empirical research to gain a clearer understanding of the issues that your target audience faces in the given problem space. In this assignment, you will work individually on (1) a detailed empirical research plan, by developing **formative study instruments** as planned in the group assignment A1, and (2) conducting background research, by **writing a review** of the academic paper identified in your assignment A1.

**Your tasks**

* Develop **Formative Study Instruments**
* **Write a Review** of an academic paper

1. Formative Research Instruments

Develop a **detailed formative empirical research plan** for studying your target audience. You can start with the big picture research plan you developed in assignment A1 and expand and refine it. Your groups’ combined **user research** must include **questionnaires, interviews,** field studies for **observations** of intended user group, investigation of users’ environments, and analysis of artifacts that are found there.

* Devise a **method of probing** your target audience in order to understand their experience and their real needs in this problem space – using field study, interview and/or questionnaire.
* Develop a **recruitment plan** for how you will find participants and motivate them to cooperate with you.
* Prepare **consent forms** for your research by updating the template provided.
* Develop **detailed research instruments** that will be used in your user research. You will need **at least 3 different instruments, among all your group members** (observation plans, interview scripts, survey questionnaire).
* **Pilot test** your research instruments with group members, by having them participate in an interview or answering your survey.
* **Update your research instruments** based on **feedback** from your pilot test.

Submit your updated research instruments on Blackboard for approval, **before January 22, 6:00pm** in a document that must not exceed 3 pages in length.

You will receive feedback about your research plans and instruments during the tutorial on January 23. Then you can proceed to conduct your research.

**READINGS.** In order to prepare for developing your research instruments, you should read the following papers, copies of which are located on Blackboard:

❑ Mack, “Participant Observations – Qualitative Research Methods: A Data Collector’s Field Guide, Module 2.” *Family Health International Journal*, 2005.

❑ Wood, “Semi-Structured Interviewing for User Centered Design.” *interactions*, 1997

❑ Wilson, “Designing Useful and Usable Questionnaires.” *Interactions*, 2007.

2. Literature review

Write a **Detailed Review** of the research paper you identified in assignment A1. Your review should include a summary of what is the problem that the authors address and who their target audience is, why this problem is important, and how they address it. Your review should provide a detailed summary of the main findings as well as the limitations of the research described in the paper.

Submit your review as a document that does not exceed 1 page in length.

Submission instructions

**What to submit?**

* A PDF document named “[name].A2.formative\_study\_instruments.pdf” containing your **Research Study Instruments** (3 page max. + research protocol and consent form)
* A PDF document named “[name].A2.review.pdf” of your **Research Paper Review** (1 page max.)

**Submission details:**

* Submit all of your electronic documents on Blackboard by the due date. Late submissions incur a penalty.
* Please include a Table-of-Contents and organize your documents with headings and sub-headings. Ensure your figures are labeled and numbered. Make sure to include detailed references in a standard citation format.
* Document quality is independent of document size; be concise & relevant.
* Writing style counts for 10%: structure, organization, spelling and grammar. Documents submitted with less than University-level writing quality will be returned unmarked.

Appendix 1: Research Protocol – Template

To assist you, a Research Protocol template is provided here. You should follow it closely filling in the <details relevant to your project>.

1. **Project** **Title**: e.g., “Interviews and Observations of <kind of potential users to be studied>”.

2. **Investigators**: Names and email addresses of all members of the team

3. **Purpose**: The purpose of our research is to understand <a few words describing the potential users> to help us derive requirements for the design of novel interactive computational media that are intended to be useful to <these potential users>. A brief description of our design concept is: <one- or two-sentence description>

4. **Process to be followed**: We will brief the participants about the purpose of the study, explain the consent form to them, and ensure that they sign the consent form. We will then engage the participants in <process to be used, for example, an hour-long, semi-structured interview>. We will also with their permission make observations as follows: <description of observation procedures to be used and the workplace or living space or environment in which the study will be conducted>.

5. **Participant selection:** Participants will be chosen from <kind of potential users to be studied>. They will be identified via <process to be followed> and selected according to <basis or criteria to be used>. In general, they will be characterized by <characteristics such as age, gender, occupation, industry, geographic location, etc.>.

6. **Relationships**: Our relationship to the participants may be described as follows: <description of relationship, which may be no relationship>.

7. **Risk and benefit:** There will be minimal risk to the participants, for example that they feel that they have wasted their time. The only benefit will be to contribute to the education of the investigators. Participants are free to withdraw before or at any time during the study without the need to give any explanation.

8. **Consent details**: We will brief the participants about the purpose of the study, and explain the **attached consent form** to them, and ensure that they consent to participate and sign the consent form.

9. **Compensation**: Participants will receive no compensation.

10. **Information sought:** The information to be sought is described in the attached <whatever research instrument will be used, such as a protocol for asking questions in a semi-structured interview>.

11. **Confidentiality**: Information will be kept confidential by the investigators. Names or other identifying or identified information will not be kept with the data. The only other use will be to include excerpts or copies in the assignment submitted, but names and other identifying or identified information will not be submitted.

Appendix 2: Consent Form – Template

To assist you, a Consent Form template is provided here. You should follow it closely filling in the <details relevant to your project>.

**Consent Form: <Title of Study>**

I hereby consent to participate in a research study conducted by <names of investigators> for an assignment in University of Toronto Computer Science 318, *Design of Interactive Computational Media*.

I agree to participate in this study the purpose of which is <description of the purpose of the study>.

I understand that

* The procedures to be used are <description of your procedures>.
* I will receive <no compensation/ compensation details> for my participation.
* I am free to withdraw before or any time during the study without the need to give any explanation.
* All materials and results will be kept confidential, and, in particular, that my name and any identifying or identified information will not be associated with the data.

**PARTICIPANT**

Name (please print)

Signature

Toronto, Date

**INVESTIGATOR(s)**

Name Signature