

# **Phase 3: A Study into Issues Affecting Homeless With Respect to Tech**

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# **Research Plan**

## **I. Introduction**

Our problem space is related to mobile phones and other technology used by the homeless. Our research aims to shed light on the issues faced by this group with respect to how they use technology. We want to understand the role that it plays in their lives and use this information to create technology that is inexpensive, accessible and comprehensive and will simplify their day-to-day activities. Based on our past research of the literature, we can infer that providing the homeless with technology can make everyday tasks easier and extend their reach with regard to finding jobs, connecting with service providers, staying in touch with family and so on. However, past research has also indicated that the homeless face issues when using technology. For instance, they have difficulty in adapting to technologies or in coping with the price of maintaining a mobile phone. We hope to learn about specific issues facing the Toronto homeless and how mobile apps can help them deal with these issues.

## **II. Research Questions**

Our research aims to answer the following questions

What role do mobile phones play in the lives of the homeless?

What challenges do the homeless face when using mobile phones?

What are some activities done by the homeless that can be simplified by using a mobile phone?

Information from these questions will give us a better understanding of our target users and learn about hardships they may face with regard to technology. By interviewing them we can find out if there are any activities that can be simplified by use of technology.

## **Research Instruments**

We have opted to use Interviews and Observation in order to conduct our research. We believe that the homeless may be more receptive to answering questions and providing insight into their lives and the role technology plays in their lives if we approach them in an organic and natural manner. For that reason we are using interviews that will be semi-structured rather than structured because we can build rapport with our interviewees and create an environment which is conducive to learning more about the specific hardships that they face with respect to mobile phones. For this reason, we will also be using Observation because we can better understand the environment under which the homeless operate and get a first-hand view of how exactly they use technology. We will make sure to use Covert Naturalistic Observation so that we can gain insight on their behavior without interfering with them or somehow affecting them by notifying the observee of our presence.

### **III. Instrument 1: Interview**

**A. Criteria:** The interviewees must be homeless who have some interest in using technology to augment their lives. They may either be using tech already or simply be in a position where they want to use tech but do not currently have access. We may also interview people who were at one time homeless so that we can understand how tech could have helped them while they were homeless and their knowledge of both sides of the coin can provide valuable insight.

**B. Purpose and Suitability:** Interviews with the homeless will help us understand how they currently use mobile phones. We will attempt to find out if they use apps to simplify their lives to search for services, to stay connected with their loved ones and so on. We will also attempt to find out how exactly they connect to the internet and whether or not it has been a hardship having the added responsibility of maintaining a phone while being homeless. We believe that interviews are suitable for this purpose because they will provide an organic, natural setting where we can establish rapport with our interviewees and be in a position where we can gain a real, raw understanding of what exactly their lives have been like and what real role technology has played for them.

**C. Logistics:** There are various areas in Toronto where we have observed the presence of homeless. We shall attempt to engage in conversation with these individuals and seek their consent to conduct an interview. We shall conduct a semi-structured interview that lasts half-an-hour or longer, depending on whether we have sufficient information to answer our research questions. We are also considering establishing contact with a homeless shelter, soup kitchen or Church, in order to gain access to a large pool of homeless who may provide us with the sample size we need to get meaningful results.

### **IV. Observation**

**Note: We are engaging in covert naturalistic observation so we do not need consent forms.**

**A. Criteria:** Homeless individuals who are currently in public spaces where they may have access to technology such as in libraries or in places with free wi-fi such as Tim Horton's or McDonald's. We shall also observe the homeless outside in the street - specifically those who may have a phone in their hands or who we notice may have a phone in their pockets. We will also observe participants who do not show an inclination to use technology because we would like to know how many people use technology and how many do not use it. This will help us assess how many people can benefit from our design. Our other instrument will allow us to gain further insight on those homeless who may not use technology at all.

**B. Purpose and Suitability:** Observation of the homeless in a covert, naturalistic manner will allow us to gain insight on how exactly the homeless use technology without them specifically modifying their habits due to the knowledge of being observed. We will see during what times they use their phones, what they use it for, length of use, whether they use any other types of tech etc. We will also observe the homeless in places that allow free use of technology such as libraries so that we can understand what type of computer services they use.

**C. Logistics:** There are various parts of the city where the homeless congregate. We shall go to some of these places, identify participants and covertly observe them for several hours. While this may be rather difficult to do, our knowledge of the city allows us to identify those individuals who we already know to be homeless and for those individuals who we cannot immediately identify, we shall attempt to observe whether they engage in any behaviors that are largely exclusive to the homeless, such as begging or sleeping on the streets. We don't believe there are any ethical issues with this research instrument because we will take every precaution to protect their privacy and to only observe them from a public place where there is no reasonable expectation of privacy, and the aim of this research is to find some way to help these marginalised individuals. We shall follow all the guidelines laid out by the instructor.