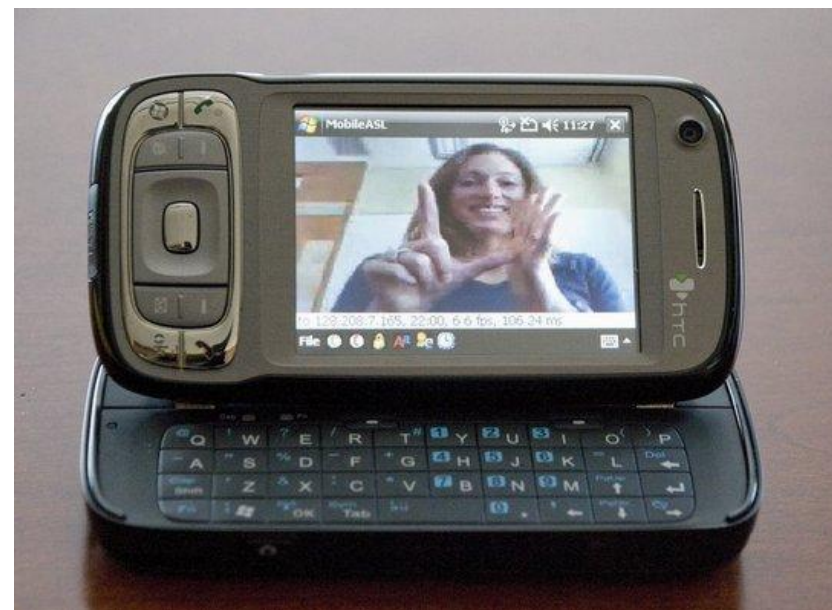# Effect of MobileASL on Communication Among Deaf Users

Joy Kim, Jessica Tran, Tressa Johnson, Richard Ladner, Eve Riskin, Jacob O. Wobbrock

introduction

MobileASL

A real-time mobile video conferencing application designed for sign language.

Why?

- ASL is a language distinct from English; text-based communication is not appropriate
- Current video phones lack mobility

Field Study

11 Deaf students were given MobileASL phones for **3 weeks** to:

- **Observe behaviors** of Deaf users of MobileASL
- Receive **user feedback** on MobileASL
- Prepare for a **longer-term field study**

methods

On-device Logging

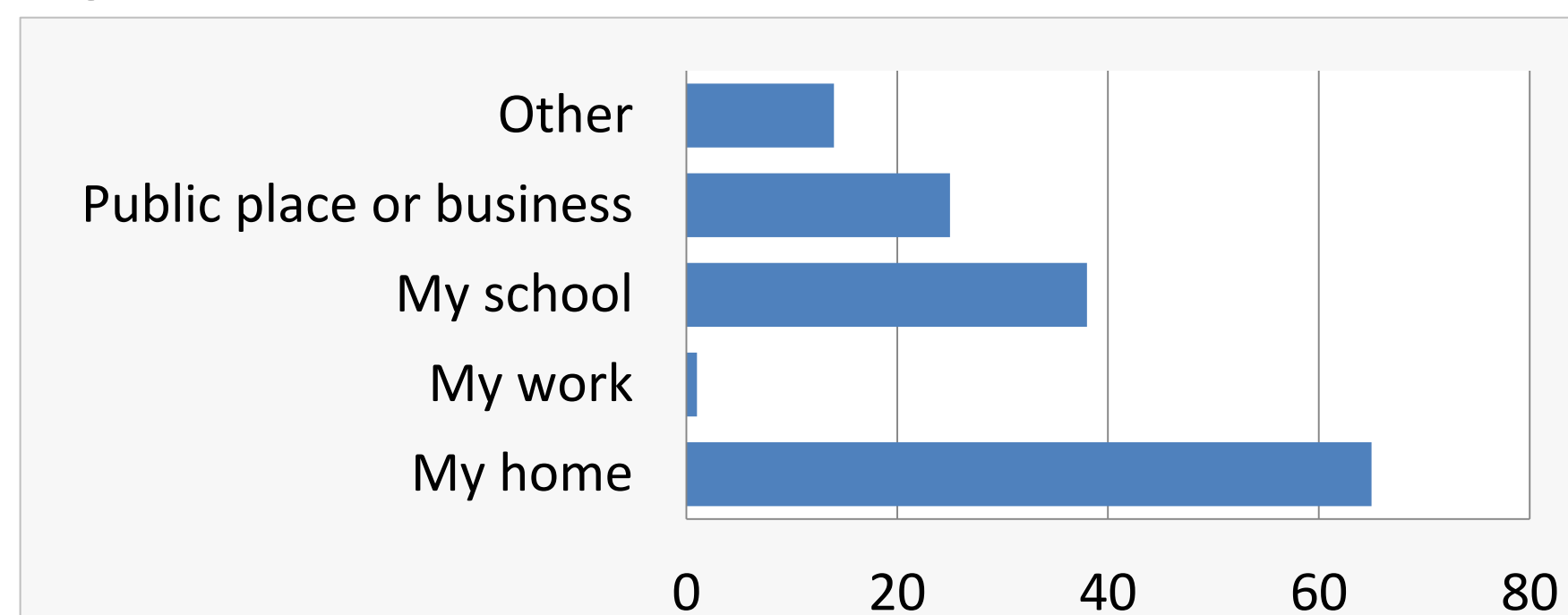We logged **4** categories of data:

- **Battery**: change in status, level, etc.
- **Calls**: call type, duration, date/time of call, etc.
- **IP**: change in IP, date/time of change
- **Program**: start and ending times of MobileASL

Experience Sampling

There were **18** possible questions. An example:

- **Which best describes where you are right now?**

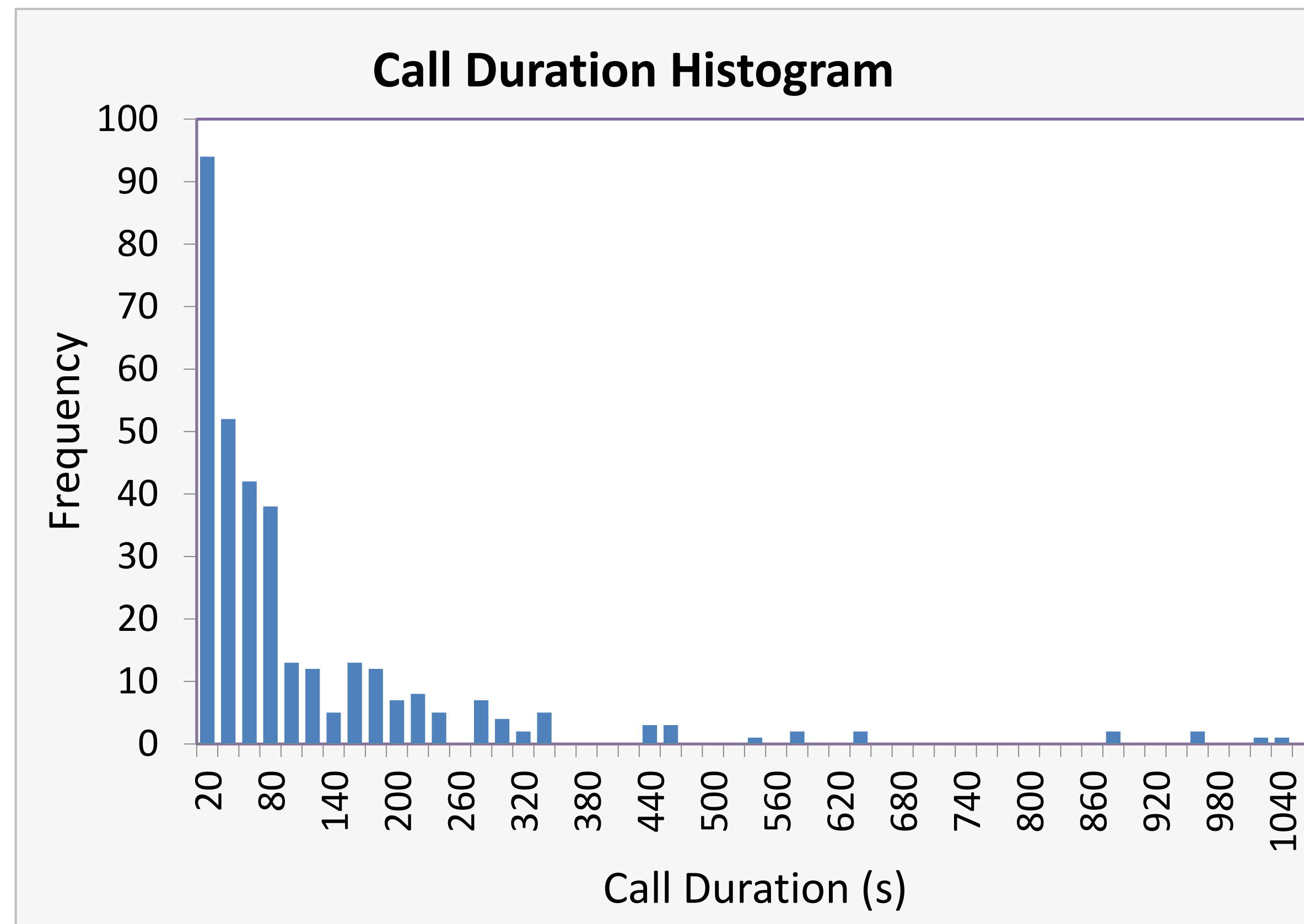We did not receive many responses for most of the questions.

We also conducted **questionnaires and interviews** throughout the field study.
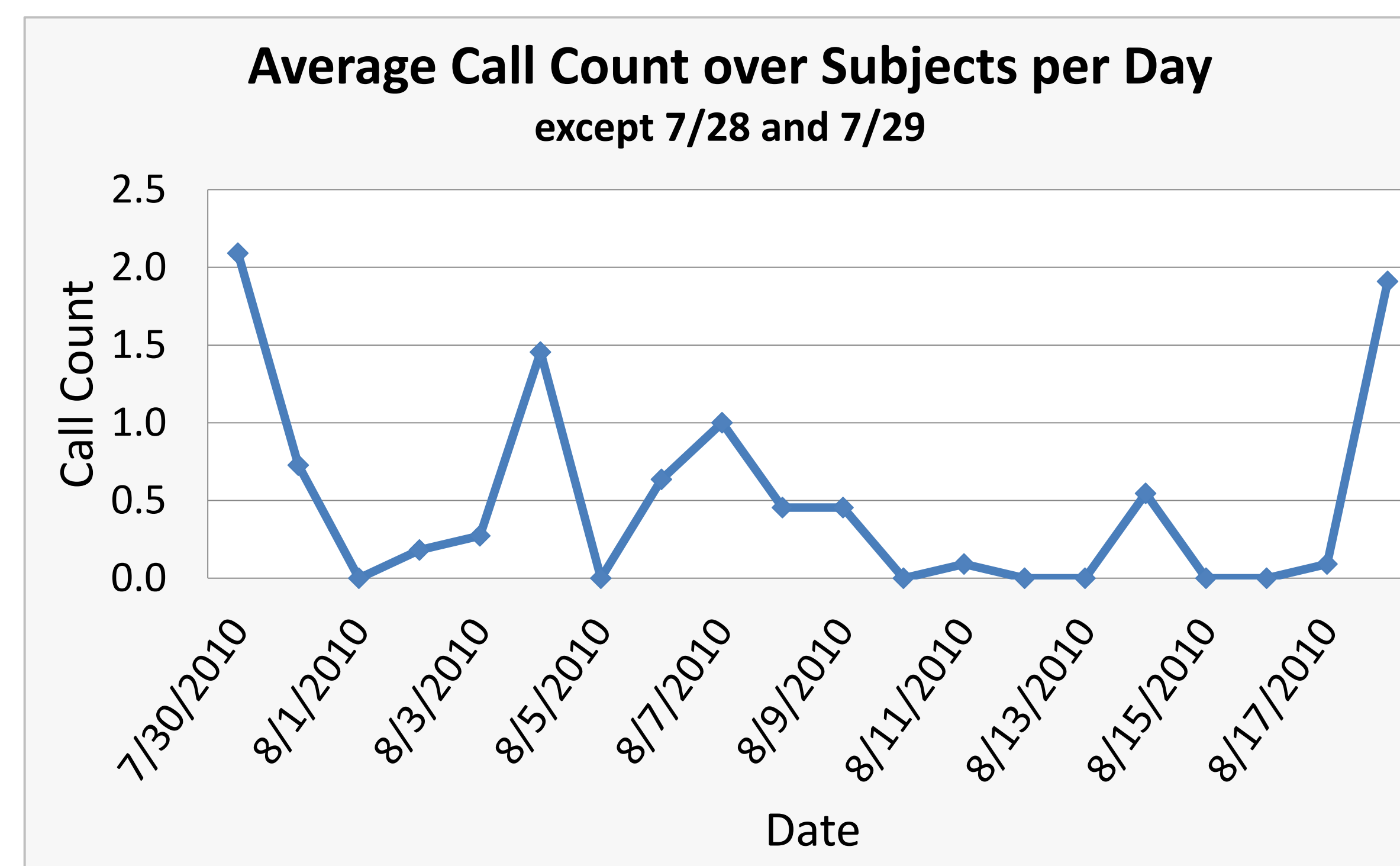
user behavior

Spontaneous Info Seeking

A pattern of short and occasional calls
Call duration tended to be short, but varied widely (M = 105.16 s, SD = 158.66 s).

Each participant made about 0 to 2 calls per day, except for the first two days of the study

Mobility

Through interviews and experience sampling, participants reported using MobileASL in public places like buses, restaurants, and shopping areas.

user feedback

Positive

- **Visual aspect**: able to see other person
- **Mobility**
- **Quick communication**
- **Ability to connect anywhere** (3G and Wi-Fi)

Negative

- **Battery life was too short**
- **Occasional bad video quality**
- **Device**: too large, camera did not tilt far enough
- **Interface needed a stylus** (was not finger-friendly)

future work

- **Create PC Version of MobileASL** for home use or use with Video Relay Service (VRS)
- Implement **power savings algorithms** to save battery life
- **Port MobileASL to Android** so it can run on sleeker devices with finger-friendly touch interfaces

acknowledgments