

Smart Cooking Research Plan

Gabi Duncombe, Meghna Bhairappa, Kelly Graham, Dave Kennedy

Research question

What are the attitudes, behaviors, responsibilities, and interpersonal relationships of smart cooking device users?

For our purposes in this study, we will define “smart cooking” to mean internet- or app-connected cooking technology, such as sous vide devices and connected thermometers, ovens, burners, etc.

Research sample

We will be using a combination of purposive and quota sampling methods to determine individuals for our study. We will recruit 5 - 7 individuals ages 18 and older that have an understanding and interest in smart cooking methods and technologies and a minimum of 1 month using smart cooking technology such as a sous vide unit, Hestan Cue, or other devices.

Our research participants will be from the United States, so we have easy access to them and able to collect valid data in a timely manner.

We will focus on recruiting two main groups who are familiar with smart cooking technology:

- Single adults living on their own
- Adults living with their partner(s) or family

Recruitment procedures

We will create an online screener to distribute within our personal networks and generate a list of eligible participants.

We will reach out to accepted participants, schedule interview sessions, and provide them with instructions and any additional resources needed to begin the diary and auto-photography studies.

Data collection procedure

The proposed study will consist of three phases for both single and partner/family participants. First, participants will complete intake questionnaires. Second, participants will keep a written and photographic diary of their cooking experiences using smart cooking technology over the

course of a week. Third, participants will engage in direct observation and contextual interviews with our researchers. As part of the contextual interview process, participants will be invited to share and discuss their autophotographs.

Additionally, the researchers will be taking part in experiential research to document their own personal experiences with smart cooking devices during the course of the study.

Data analysis procedure

The proposed study will include a rigorous analysis of the attitudes, behaviors, responsibilities, and interpersonal relationships of smart cooking device users. Our methods for analysis will be rooted in grounded theory.

The participant diary data and the output from the observational and contextual inquiries will be transcribed, anonymized, and coded to prepare for thematic analysis and categorization to identify prominent themes, both dominant and outliers.

The photographs from the participants will also be coded and placed into common categories or themes. Evaluation of the categories will consider all aspects of the photographs, including color, composition, content/subject matter, lighting, intention to share, and participant's descriptors of the photograph from the interviews.

After the category analysis, the insights will be constructed into a theoretical framework that will form the basis of our final report.

Research timeline

Our timeline based on current estimates is as follows:

Recruitment and interview/observation guides Jan. 25 - Feb. 9

Study outline Jan. 25 - Feb. 15

Data collection Feb. 9 - Feb. 20

Week 1 - Diary Studies + Auto-Photography

Week 2 - Interviews + Observation

Data analysis Feb. 21 - Feb. 28

Report writing March 1 - March 5

In-Class presentation March 6

Final revision and submission March 15