



GIX MSTI Program

## TECHIN 521, A2.1 Field Study Plan

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Team:

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**1. Q1. What is the overall design question your study is intended to address?**

How can we make it easy for people who have difficulty reading to quickly determine if food has expired?

**2. Q2. What is the data that supports your design question?**

- Those over age 55 are the most likely to hold on to food past any date on the label, which could expose them to foodborne illness.
- Those 65 and older are at increased risk of food-borne illness due to compromised immune systems and aging organs
- Nearly half of people aged 65 or older who have a lab-confirmed foodborne illness are hospitalized.
- Nearly one-third of all seniors live by themselves, according to the U.S. Census Bureau. That's close to 14 million seniors aging alone.
- The National Assessment of Adult Literacy (NAAL) indicates the following about older adults' health literacy skills: 71% of adults older than age 60 had difficulty in using print materials
- Age-related vision problems

<https://www.nsf.org/blog/consumer/food-expiration-dates-survey>

<https://www.dispatchhealth.com/blog/why-are-the-elderly-more-vulnerable-to-food-poisoning/>

<https://www.cdc.gov/foodsafety/people-at-risk-food-poisoning.html>

<https://www.aplaceformom.com/senior-living-data/articles/senior-isolation-facts>

<https://www.cdc.gov/healthliteracy/developmaterials/audiences/olderadults/index.html>

<https://www.mayoclinic.org/healthy-lifestyle/adult-health/multimedia/vision-problems/sls-20076758?s=2>

**3. Q3a. Describe 2-3 activities or tasks that lead up to the main concept(s) that you want to learn about (pre-activity) and 2-3 post-activities or tasks. Refer to our example in studio about Activity Lifecycle.**

**Home:**

**Pre:**

- Be hungry for a meal.
- Prepare to go shopping

**Post:**

- By observing the situation of the food to determine whether it is edible
- Cook with fresh food.
- Throw away food that has gone bad

**Supermarket:****Pre:**

- Identify that they need to buy food by checking the fridge, pantry, etc.
- Bring and wear glasses or magnifiers for poor vision.
- Walk to the relevant merchandise area.

**Post:**

- Organize and put the food in the fridge
- May recheck dates to decide where to put food.

**Q3b. What are the field research questions that will help you learn more about your design question? Identify all relevant areas of focus (Focal Points) (of the 10 listed in Baxter et. al, pg 390) and write 2 or 3 questions or statements you would like to learn about in your field observations for EACH relevant focal point. Reference our lecture slide examples.**

**Food and Drinks:**

- What types of food do people pay more attention to when they are shopping in the supermarket?
- How much time do people spend checking expiration dates when shopping at the supermarket?
- What do normal people do when they want to check the date during shopping?
- How do people determine whether food is edible at home when there is no labeled date?

**Demographics:**

- What kind of people have difficulty with reading/understanding expiration labels?
- Are people who have trouble reading labels generally alone or with someone else?
- What types of people will pay more attention to the date when buying food? Their age/ gender?

**Overall Experience:**

- Does it take individuals a long time to determine if food is bad?
- What are the pain points of checking the quality of food?

**Tools and Technology:**

- What kind of tools do people use to find out if food is good?
- Do people often use other tools to help them determine if it's good condition?

**4. Who are you going to observe during your field observations? What are the characteristics of these people? and Why are you focusing on this group? Your solution may or may not be targeted at this audience.**

People have difficulties in reading.

- People with limited mobility (Difficulty holding food for long periods of time/difficulty turning food with crutches)
- People with significant visual impairment: people with presbyopia /glasses, people who need to look at food very closely
- Most of seniors (slow motion)

Reason:

- This group is clearly characterized and relatively easy to distinguish. And these people are our main target group for DQ.
- This group usually has more difficulty than others in distinguishing whether food is fresh or not.

**5. Q5. Do you need to gain permission to observe in your chosen people/activity/environment? If so, how will you gain permission to conduct your field study ? How will you recruit?**

- In the supermarket we may need to notify the employees we are taking observations for a study so as not to raise an alarm. If we want to observe people picking food in the supermarket, we will keep a distance to watch. However, if we want to take photos to record their behaviors, we will ask for their permission.
- For observing people in their homes we will definitely need to ask permission. We can firstly start with our classmate and investigate who cooks frequently and have difficulty identifying expired food. We will go to their house to observe their cooking and their behavior with the food in the refrigerator. We can also ask elderly neighbors if they would allow us to observe them cooking for 30 mins.

**6. Q6. What ethical considerations might come into play during your field study?**

Reference Courage and Baxter Chapter 3 for details.

**Home:** We do need permission if we want to enter, observe someone and take photos at their home.

**Supermarket:**

If we are just observing people, we just keep a distance and observe. If taking photos to document, do we need to ask before or after taking photos.

**7. Q7. What is your overall logic for conducting each of the three observation sessions?**

- Where will you do the observations?
  - Safeway, QFC, and personal homes
- when will you do the observations (date)

To observe in the supermarket, we will conduct observations on weekends. We anticipate that the supermarket will be more crowded during this time, allowing us to observe a larger number of people's behavior.

For observing individual people at their homes, we will focus on their meal preparation time.

**8. Q8. How do you plan to collect data?**

Be as detailed as possible and include your reasoning for your data collection approach.

**Supermarket:**

We will observe shoppers in the bread, dairy and produce aisles. We will note how long they take to observe food before placing it in their cart and what methods they use to examine the food, such as smell, touch, rotating packaging, comparing different items, and note how much of the packaging they observe/read.

**Kitchen:**

We will observe how people recognize when/if food is spoiled and categorize it. We will observe how people recognize when food is spoiled and categorize it. And record the time they consume in the process of finding the shelf life.

Afterwards we can compare the data recorded in different scenarios: in what way do people distinguish the shelf life of food and whether it has expired? In which scenarios is the time consumed the longest?