

# Preliminary Analysis

Dan Rix | CS 371

## Target users

Mothers or wives who do the majority of the meal planning and grocery shopping for their households.

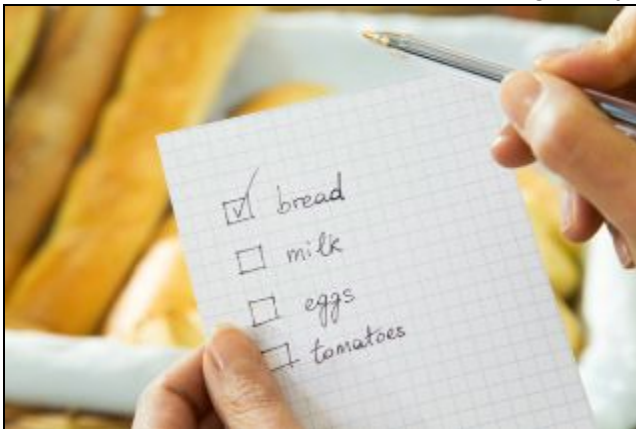
## Current system

My target audience uses mostly spreadsheets and paper to plan their family meals and prepare shopping lists. These two processes normally involve two separate interfaces: (1) a spreadsheet for meal planning to list ingredients and (2) a piece of paper to write down their grocery list. Below are two images of the current interfaces:

Interface 1: Screenshot of a spreadsheet used by a user to plan meals



Interface 2: Paper and pen - handwritten grocery list based on ingredients in Interface 1



## Interaction framework

### **Presentation:** No known issues

Presentation is the interface being able to accurately present the system state. Each interface (paper or spreadsheet) presents the necessary data for creating meal plans and grocery budgets.

### **Perception:** No known issues

Perception is the user's ability to sense the data with one or more of their 5 senses. The target audience is capable of seeing the interfaces and the information the interfaces are presenting.

**Interpretation:** Possible Issues

Interpretation is the user's ability to recognize components and controls of an interface. In this case, the target audience may have issues recognizing which fields within the spreadsheets allow input and what type of data the field needs.

**Evaluation:** No known issues

Evaluation is the user's ability to relate the interpretations received from the interface to his/her understanding of the system and to his/her goals. If interpreting the controls properly, the target audience properly evaluates the fields to assess and create their meal plans and grocery lists.

**Goal:** No known issues

Goal is what the user is trying to accomplish. The goal of the target audience is to create/manage meal plans and creating grocery lists and budgets from those plans.

**Intention:** No known issues

Intention is the user incorporating the system to accomplish his/her Goal. In this case, the interfaces (spreadsheets) are meant to accomplish the goals of the target audience.

**Specify sequence:** No known issues

The sequence is the plan of the particular interface actions that the user is to execute in order to carry out his intention. The users know the right sequence of interactions to currently produce their meal plans and grocery list.

**Execution sequence:** Main issue

Execution is physically using and interacting with the interface. The interfaces used are not integrated so the user must manage the data in each interface separately making it possible for data to become unsynchronized. Also the user must create grocery lists by hand.

## Variables of usability

**Efficiency:** Score -2

Efficiency is the amount of effort or time required to perform a task. The current system is very inefficient because the user has to hand write each grocery list after clicking through each of the meal tabs in the spreadsheet (hopefully not repeating items on their grocery list).

**Learnability:** Score 1

Learnability is the time and effort it takes for a user to become proficient with the interface. Paper is extremely simple but the spreadsheets makes the score a 1 because all the users will at least reach an intermediate proficiency of using spreadsheets.

**Familiarity:** Score 1.5

Familiarity is the degree in which the interface resembles something the user has used before. Spreadsheets, paper, and pen are very familiar to the target audience (since most of them have been using such tools for a couple decades or so for other purposes).

**Simplicity:** Score 0

Simplicity is the amount the user needs to know to master the system. The target audience is very likely to be able to form a mental model of the system.

**Mapping:** Score 0

Mapping is the clues within the design encouraging the user to form a consistent mental model of the system. It is highly likely that the target user will form a consistent mental model of the system.

**Motivation:** Score 0.5

Motivation is the level of desire the system gives to a user to use a system. The spreadsheet portion of the system is slightly more likely to appeal to the users due to the coloring and simplicity of the design.

**Trust:** Score -0.5

Trust is the amount of confidence the user has when using the system. If the users have not accurately recorded all of the ingredients from the spreadsheet onto the grocery list they do not fully trust the system, hence they double check their handwritten list against the spreadsheet.

**Visibility:** Score -0.5

Visibility is the degree in which the functionality and the data of the system is available to the user when he/she needs it. Data or functionality required to complete a scenario can be found by the target user after some searching.

## Summary

The users desire a system for easily creating/managing meal plans and generating grocery lists. Their current involves mostly manual input and double checking of data between the physical and digital interfaces.