

CS 147 : Augmented/Virtual Reality Studio

Assignment Two: POVs, HMWs and Prototyping

Introduction

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Problem Domain:

We wish to help beginners and people who lack the ability to cook for themselves to learn to cook. Our initial need finding revealed that many people who wish to learn how to cook feel they don't have access to a way to learn, or lack the motivation to commit to a program in culinary education.

Initial POV:

We met Gilly, a Row House chef who graduated from culinary school.

We were amazed to realize that even though she went to school for cooking, she valued hands on education more than going to school.

It would be game changing to bring the personalized instruction in an accessible way to everyone willing to learn.

After speaking with this chef, who is highly trained and has experience in training others, we wanted to get a better look at how beginners feel about learning to cook, and what they think would be the best way to learn.

Additional Need Finding Interviews

We decided to narrow down our target audience to be specifically college students and young adults living alone for the first time and trying to learn how to cook for themselves. Even though only one out of our four initial interviewees is a member of our new target audience, these initial interviews still provided valuable insight into different aspects of possible solutions that we could pursue.

We decided to interview two more college-aged adults in order to gain more insight into our target audience. Below are our findings from these two interviews.

Patrick O’Grady, Stanford student

We talked to Patrick, a senior at Stanford. He had just spent the summer living in San Francisco and cooking for himself. He described himself as a “self-taught” cook who learned through experimentation. He and his family used to have cooking contests where they would go to the grocery store and buy ingredients, then compete to make the best dish. He valued this as quality time spent with his family doing something fun.

This summer, one of his main issues was cooking on a budget while still eating a variety of meals. He ended up repeating the same dishes over and over again, and would love a way to get more suggestions for different meals based on what ingredients he had on hand.

When we asked his thoughts on cooking and sharing his accomplishments with friends, he said “I don’t see why you would need an app,” stating

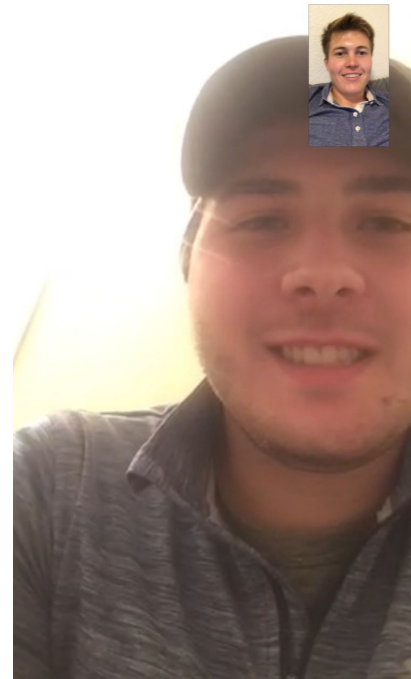
that he would rather share in person. However, he admitted that he isn’t the biggest fan of social media.

Finally, we asked him if he would be interested in receiving cooking instruction to improve his skills. He said that this wouldn’t interest him because he thinks it would “take the fun out of it.” He loves the idea of challenging himself to come up with his own recipes and techniques based on what simple ingredients he has.



Greg Concilla, Miami University Student

Our next interview was with Greg, a Junior at Miami University in Ohio. Greg recently moved into an off-campus apartment where he is now responsible for making all of his meals. He is very adventurous and loves to teach himself new things. As a result of his new living situation, he has been learning how to cook over the last couple of months. We interviewed him to see how his self-taught process has been going and what he would have liked to do differently and where he will go from here. His process involves first imaging something that he thinks will be good either through researching, watching cooking shows, or coming up with his own recipes. He then goes to the store to find the ingredients he needs to make whatever he came up with. He finds the process of cooking engaging and relaxing and loves when others are able to enjoy his creations. One major piece of feedback he gave is that at the end of the week there is a bunch of leftover food in his refrigerator, so it would be nice to have a system where you can input ingredients and output recipes using those ingredients. Another comment was that he liked instructions focused more on qualitative factors such as cook until “tender or golden brown” versus cook for 10 minutes, making the process more “user-interactive.”



POVs and HMWs

After completing our original and additional Need Finding Interviews, we selected our three favorite Point of View statements and developed How Might We statements for each of them:

POV 1: Sports Dietitian

We met Kristen, the Stanford Athletics Dietitian.

We were amazed to realize that although competition can originally make learning to cook intimidating, demonstrating successes to friends can serve as a reward and small victory.

It would be game changing to harness this competitive drive for novice users to become better cooks but leaving it at a level that does not drive away the users.

POV 1 HMWs:

Sample HMW Statements: how might we...

1. combine competition and cooking to make it more fun
2. use friendships to motivate people to cook

3. combine speed, ease, and flavor

POV 2: Stanford Student

We met Joe, a Stanford student living in Mirrielees and learning to cook on his own.

We were amazed to realize that although he has a kitchen, he often eats at dining halls or buys food as he views cooking as a chore.

It would be game changing to find a way to make cooking fun and enjoyable, so that it doesn't feel like a chore.

POV 2 HMWs:

Sample HMW Statements: How might we...

1. provide some sort of entertainment while cooking to make it fun, even if it is hard work
2. make cooking easier, so that it does not feel like a chore
3. encourage pride in what someone cooks, so that they feel cooking is worth it
4. make the process of cooking feel like a challenge and adventure

POV 3: Mother of Young Children

We met Mrs. Campbell, a mother of five kids.

We were amazed to realize that despite having a strong willingness to learn, she had only taken 2 cooking classes 20 years ago and said learning with a friend would be the best way to motivate her.

It would be game changing to utilize social connections to encourage and motivate in the process of learning to cook.

POV 3 HMWs:

Sample HMW Statements: How might we...

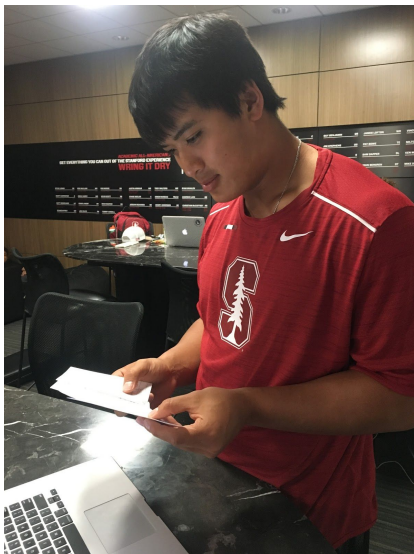
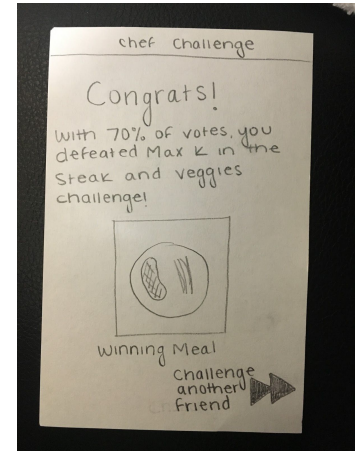
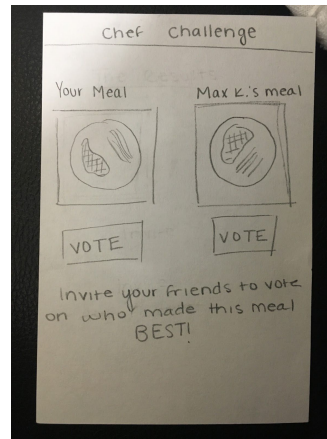
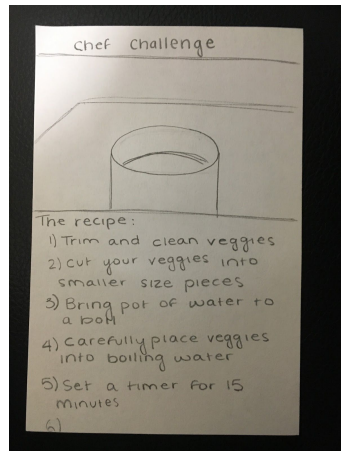
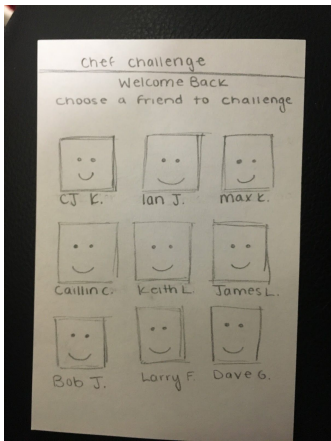
1. harness the initial motivation to lead to long lasting improvement
2. remove barriers to allow people to start learning
3. replace "cooking classes" with things that can be done in your own home at any hour of the day.

Experience Prototypes

From this list, we selected our three favorite HMW statements, and generated possible solutions, as well as experience prototypes, which are as follows:

HMW #1: How might we utilize competition to make the process of cooking more fun?

Solution: A cooking competition app, where learners can compete to make the same meals as their friends, and people can vote on the best finished product.

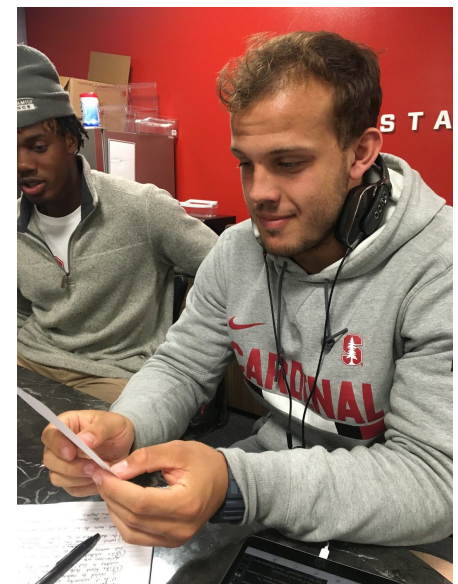


Our assumption was that the user would want to compete with friends to make the best recipe and then receive votes on whose food was better. We drew our prototype on notecards and tested the prototypes with a Stanford student. The user enjoyed the competitive aspect as a way to motivate him to have fun competing with his friends. He also wanted to have a way to learn cooking skills initially. We found this insightful as we could make a level-up system with tutorials along the way. Our assumptions about the competitive aspect were valid, but the idea to not include a tutorial feature was not valid so we are going to rethink our solution with these insights.

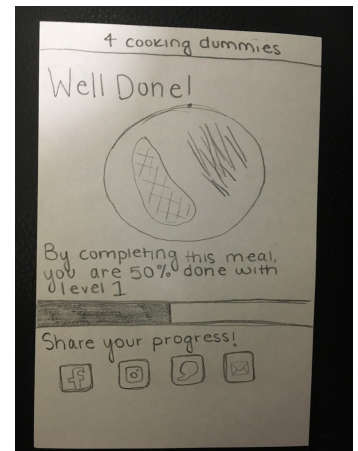
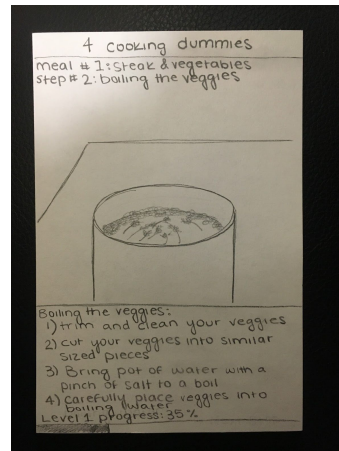
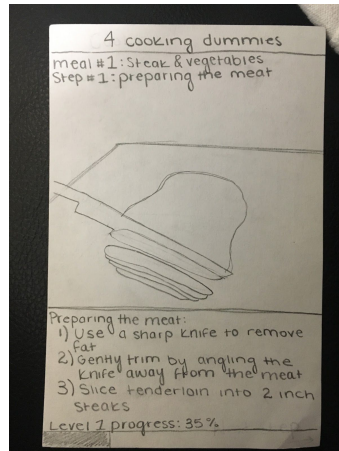
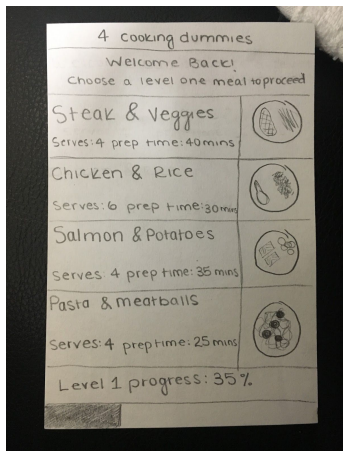
HMW #2: How might we use friendships to motivate people to cook and learn to cook?

Solution: An app which motivates beginners to learn to cook and take pride in their developing skills by allowing them to build a profile and demonstrate their finished products to friends

We assumed that the user would want a way to share recipes with friends and have a social media like platform to make cooking fun. We then drew our prototype on notecards and tested the prototypes with a Stanford football player. The user liked the social media aspect as well as the augmented reality idea. However, he did not like the tutorial side

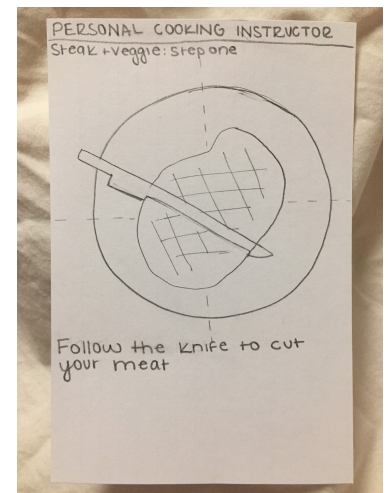
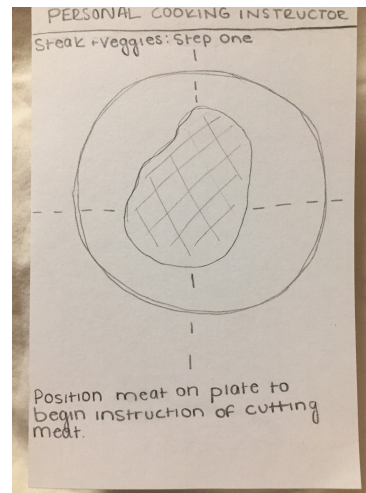
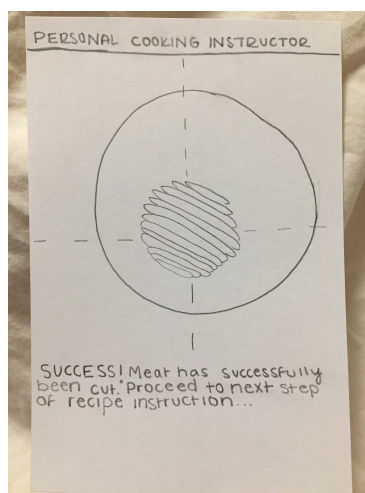
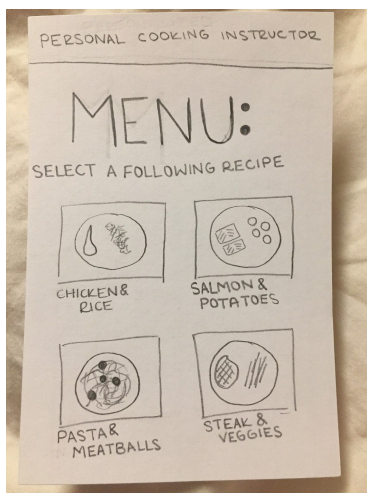


of the solution because he would rather have a someone showing him how to cook in person. We found out that there may not be a way to replace the human-aspect of teaching someone how to cook and will become a major consideration in our implementation. Our assumption about a social media platform was well received but our assumption about the teaching aspect was questioned.



HMW #3: How might we replace “cooking classes” with things that can be done in your own home at any hour of the day?

Solution: An instructional app which allows users to receive personalized cooking instruction, including step by step guides to basic skills such as cutting meat and chopping vegetables, from the comfort of their home



We assumed that the user would want to choose from a pre-set menu of recipes to choose from and also would want very specific instructions at each step of the process. We drew our prototype on notecards and tested the prototypes with a Stanford student. She really liked the idea of a step by step learning process, but was unsure of how easy it would be to refer to an app while also using your hands to cook.

In general, from testing our three prototypes, we found that the idea of competing against friends was highly attractive to some users, while others thought it could be stressful and make learning more nerve wracking. In revising our prototypes, it may be a good idea to create a solution which has the option of competing, but could also be done individually. In addition, the insight that using a handheld device while cooking could be tricky was very important, and will be helpful in revising our prototypes to create a final solution.

