

Team Philadelphia

Project 2: User & Domain Analysis

Executive Summary

The most important points of the following document include: our product, the research methods and rationale, the summary of our research findings, personas, context scenarios and requirements, and the experience attributes.

Introduction of the product idea and its project parameters

Our product, “The Digital Water Bottle,” is your everyday reusable water bottle, but with a digital aspect. This unique water bottle is designed to track how much water you drink, keep your drinks hot with a built in heating device, special customization lighting to personalize your look, and a reminder to clean your bottle when it gets dirty.

Some Constraints of our product: over featured, using too many features would create an over-complicated/hard-to-use product. Narrow down to more practical use features

Research methods and rationale

For the purpose of our product, the “Digital Water Bottle”, our group has collected research through various ways. By conducting user interviews, focus groups, a stakeholder meeting, and exploring other methods, the goal is to establish an understanding of how our product can best serve the needs of our user.

Methods of Conducting Research:

Stakeholder Meeting

- We met with a stakeholder of our product, Professor Kostin, to inform him of the groups idea to create the “Digital Water Bottle” and receive insight towards the direction the groups should go and want to focus and consider.

Focus Group

- Having a focus group allowed us to study and analyze user perception and behavior towards how they function and use certain products. This was done by conducting a large group interview and gathering notes.

User Interviews

- Interviewing people one on one allowed us to understand potential subjects on a specific level and allowed us to see what roles of people may best use our product. Notes were collected on the questions that were asked.

Analyzing Competitors Products

- Studying our competitors lets us understand the industry and what the majority of competitors do. This was done mostly by doing research online.

Summary of research findings

In this section, our methods or research will be explained to demonstrate what we gathered. This serves as an importance to how our team decides to build the “Digital Water Bottle”.

- Stakeholder Meeting
 - When conducting the Stakeholder meeting, our Stakeholder was able to give his insight on what the group's idea was. We were told that the business model going forward should be to focus on selling the most bottles we can to customers. Our strategy to sell should also consist of marketing towards health reasons as we emphasize the drinking and washing purposes. For the features we wanted to include in our bottle, our stakeholders emphasized the importance to center our features on what the research of our user displays. Our stakeholder reiterated the importance task designers had in which they had to “[...] take into consideration their responses” on what they would want from a bottle. The goal would be to center the design in order to have it appeal to consumers because overwhelming the user with lots of features on our bottle could confuse our potential customers.
- Focus Group

Feedback from User Interviews:

- Thinks it would be a great improvement over their water bottle
- Prefers consumer friendly approach, set up should be easy and simple for the user
- Would like different customization options, possibly make them made to order with personalized designs for a premium option/more expensive option
- Needs a specific selling point to stand out from other products, too many small features. They would rather have a few main features

Research methods and rationale

1. Stakeholder meeting (chapter 5)

- Thinks it's important to sell for customers, design team must focus on goal
- The ability to track health progress via water bottle is the key factor/what will draw consumers to our product
- Health is the reason, drinking and washing purposes

- Features in water bottle, research must be completed on users, and designers must take into consideration the feedback
- Over feature may be a constraint, list could be long and we could choose features, but too many feature can be overwhelming for consumers
- Interviews and research by design team is main key and the next step in developing/pushing our product
- Come up with data, then center it around the design to then appeal to consumers

2. The focus Group

During the process of the focus group, we interviewed two athletes and two personal trainers about their habit of using water bottles. We decided to ask them due to their relatively high demands of the water bottle, and, as a result, we got a lot of good feedback.

- Need to be drinking but not often, 3 was given
- Plastic is convenient
- Reusable is a pain to use
- Use renewables for environmental safety
- Hard to keep a reusable clean
- Lost many reusable water bottles, plastic is ok to misplace but a renewable is hard to keep track of where it is
- Drinks 3 liters of water a day

- Tracks water intake when she is at her breaking point and feels like she needs water
- Drinks when she feels dehydrated
- Don't know how to track water intake?
 - Log water bottle intake? Extra work
 - Wants to find it effective and if it inst, there is no point
- 24hrs before a game need to be hydrated
- When she has it and loses it, she waits till get one
- Easier to fill up water bottle on campus
- Tedious to clean, need to go to sink
- Gatorade water bottle is ugly, if it were to have an attractive look they would take care of it
- Brand that is popular and important to have that water bottle
- Prefers bland one because she loses it
- More inclined to take care of water bottle if gifted and expensive
- Depends what its used for, customization is not a thing for sports
- A bottle for campus may be customized. Clean design, stickers look tacky
- Feels fine with having dirty water bottle
- Reminders help, personal mindset a factor in cleaning
- If bottle is not for water, then it must be cleaned immediately

Personas

Our persona development process we used was determining what persona to use and what would be most efficient. Since our product is a water bottle, we decided that an athlete would be the best persona.

Nineteen year old Jeff would have been on the sidelines because of his dehydration problem. He had a hard time reminding himself to drink his water and was frustrated by his constant exhaustion.

He then decided to purchase an electronic water bottle due to it's quality of life improving features such as reminders to hydrate and personalization features. He was able to monitor his body's level of hydration and keep himself healthy enough to keep doing what he loves. Not only was Jeff impressed with his new product, he recommended it to all of his friends and family. Soon enough he was back on the team, ready to win every event all thanks to his new water bottle.

User Goals:

- Monitor hydration levels**
- Remind user to drink necessary amounts of water**
- Personalize designs for each user**

Context Scenarios and Requirement

Due to the Covid-19, most people are staying at home. In order to keep the body healthy, this led them to start doing fitness at home. So, managing hydration levels would be a

crucial fact for them. Since our product has the precise recording of users' water input and online delivery service, it will become popular as more and more people start doing fitness at home. Besides, people who've quarantined for a long time are willing to go outside for exercises. They eventually will need water bottles for managing their hydration levels.

- Helping people stay healthy when quarantined.

Experience Attributes

Feedback from stakeholder meeting

- Bottle must be advanced in health tracking (calories, count steps, etc.)
- Do not over feature the product. Too many features can make it hard to interact with and understand.
- Make the product for the people. Take into consideration everything that they want and try to please everyone in the market.

Feedback from focus group

- Extremely important to make the product easy to clean
- Reusable bottles are often misplaced, so a tracker in the bottle would be extremely helpful
- Bottle must track water intake, writing it down yourself is a hassle
- The more visually appealing a bottle is, the more likely someone is to take care of it (customization)

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Colophon

Team Lead-Ryan

- Split up sections of the document to each individual member of the team
- Held online zoom meetings-gave directions of what each member should do for Project 2
- Wrote the Executive Summary of the document
- Wrote the Introduction of the Product Idea and the Project Parameters
- Wrote the Colophon section of the document

Generator-David

- Created questions for the interviews based of the feedback from the focus groups and stakeholder interviews
- Managed the layout of project 2
- Helping team lead distribute work to other team members

Synthesizer-Jose

- Collected user interviews
- Took notes for both the focus group and stakeholder interviews
- Wrote Research Methods and Rationale section of the document
- Wrote the Summary of Research Findings section of this document

Industrial Designer-Dane

- Interviewed current water bottle users
- Wrote personas section of the document

Visual Designer-Ben

- Analyzed feedback from focus groups and stakeholders
- Wrote Context Scenarios and Requirements section of document
- Wrote Experience Attributes section of document