
Sustainable Period Protection

Feminine Care Product & Service

TABLE OF CONTENTS

One. Problem

Two. User Research

Three. Journey Map

Four. Competitive Analysis

Five. Opportunity Area

Six. Proof-of-Concept

Seven. Next Steps

Appendices

ONE. Problem

Traditional Period Protection

PADS

The modern pad absorbs blood with a thick 'diaper-like' material and large surface area. Since a pad adheres to the underwear, it shifts easily, causing leaks.

TAMPONS

The modern tampon has a plastic applicator for easy insertion into the vagina and is made of a compressed material that unfurls to absorb blood and prevent leakage. Toxic Shock Syndrome (TSS) can occur after prolonged use because of trapped oxygen. Tampons are painful to remove when dry.

**BRICK & MORTAR**

Pads & tampons are sold today in convenience stores, but feminine hygiene has a lot of stigma associated with it.

“Dropping the tampon led to lower evaluations of the [her] competence, decreased liking for her, and a marginal tendency to avoid sitting close to her.”

ONE. Problem

Waste of Traditional Period Protection



Traditional Period Protection

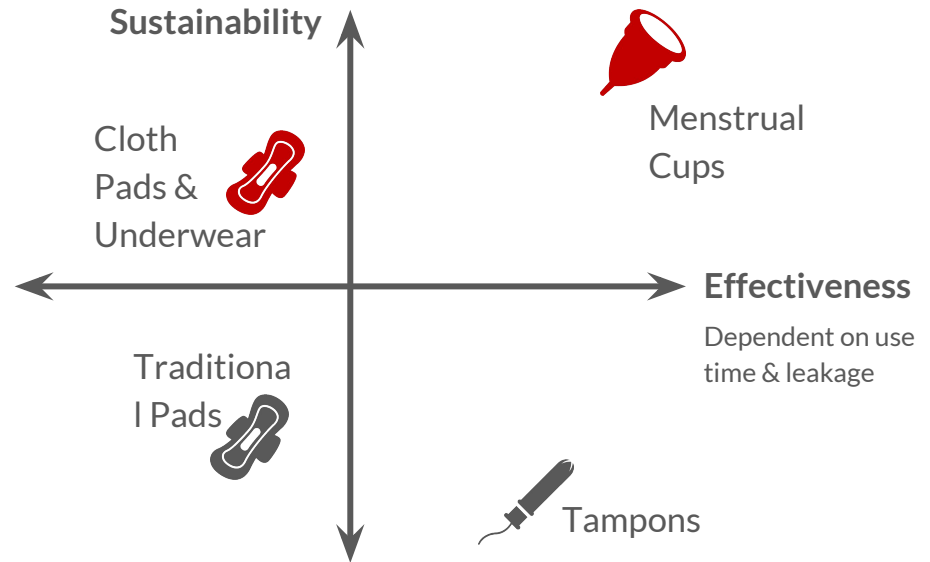
Usage

ONE. Problem

Sustainable Period Protection

Menstrual cups are significantly more sustainable than any existing period protection because one cup has a lifetime of up to 10 years.

They're also extremely effective in containing blood and only need to be emptied every 12 hours, much longer than pads, which need to be changed every 4 hours, and tampons, which could cause TSS if left in for over 8 hours.



ONE. Problem

Menstrual Cups

Menstrual cups are usually made of silicone and last for up to 10 years before being thrown away, although most women use a cup for about 4 years before throwing it away. A cup costs between \$15 and \$40, and are usually sold online, although the Diva cup is sold in stores.

Cups are inserted into a woman's vagina and sit below the cervix. The cup unfolds to form a leak-free seal and only needs to be emptied every 12 hours. Air holes near the rim reduce the risk of TSS. Cups should be washed with soap and water between uses and boiled for 5 min between periods. [5 min video on how to use cups](https://www.youtube.com/watch?v=o9fPUfm-uYE) (<https://www.youtube.com/watch?v=o9fPUfm-uYE>).

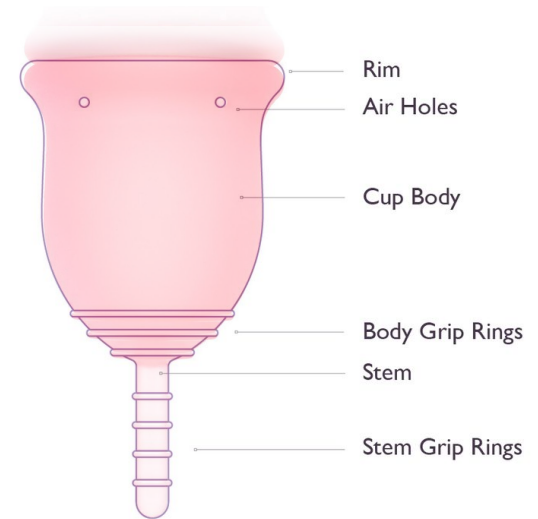


Diagram of the Lena Cup (5).

TWO. *User Research*

Cups are more than just sustainable

Cups reduce the waste produced from period protection, are cost efficient over their lifetime, reusable so women don't have to continue buying products monthly, and when used correctly, are effective for longer spans of time than other products.

"I love my cup. When I'm having a bad day, I think about how much trash I've saved over the years I've been using my cup."

"I've spent exactly \$0 on period products since I got my Diva Cup 2 years ago!"

"I can sleep without worrying about the leaks and ruining my mattress... My whole down there stays clean enough throughout the day."

TWO. *User Research*

Usage

Despite all of the advantages of cups, 70% of American women still use tampons as their primary method of period care.

Menstrual cups have not gained a significant share of the period care market since they started becoming popular 10 years ago. But, studies show if a woman successfully uses a cup once, she is likely to continue using it.

“One thing that is important to note is that once a girl used the cup once, continued usage was extremely high. After one month of successful usage, girls used the cup in 91% of subsequent periods.”

(Oster and Thornton)

TWO. *User Research*

Cup Users

Cups have a learning curve.

Knowing how to fold, insert and remove a cup can be difficult the first few times, but it gets easier with practice.

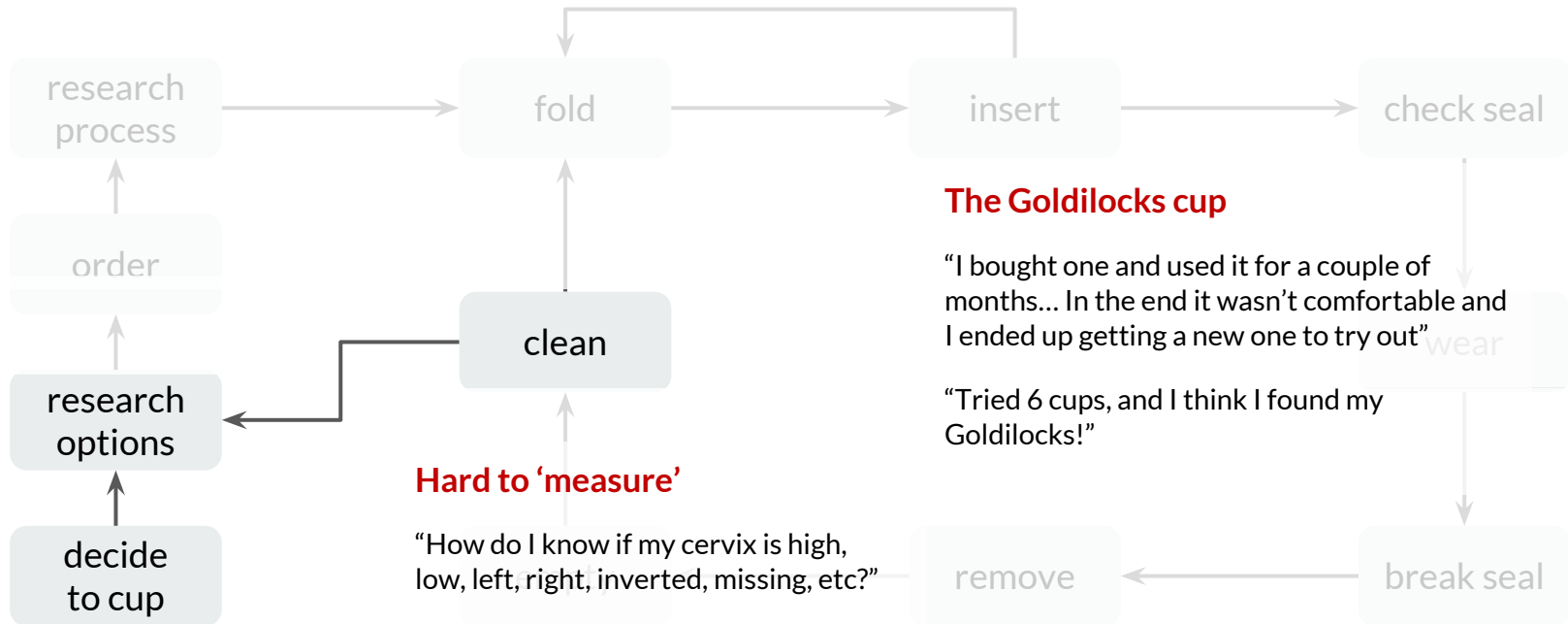
We want to design for beginners- all of the pain points on the cup journey are even more critical the first time. And one positive experience is all it takes for most women to continue using cups.



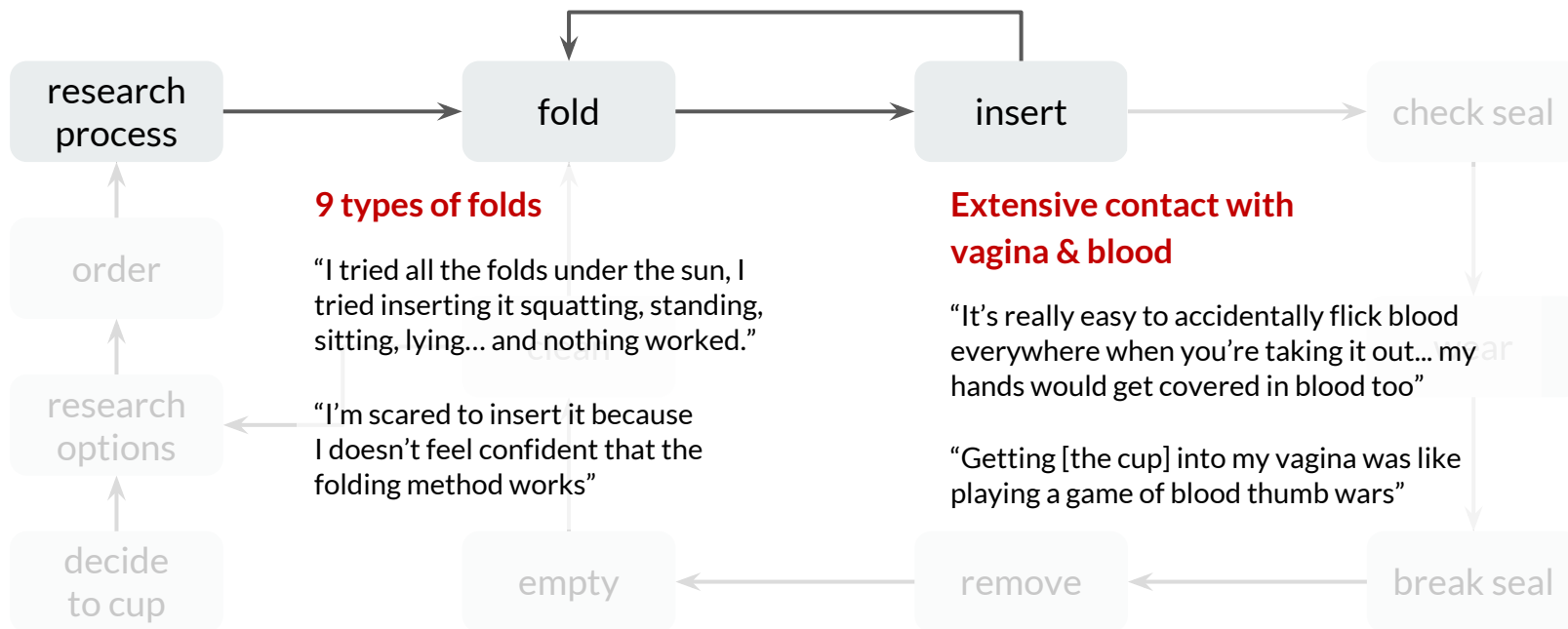
We interviewed 3 potential cup users, 2 beginners, and 1 experienced cup user.

We also conducted a survey, participated in immersive research, and looked at online forums, blogs, and social media.

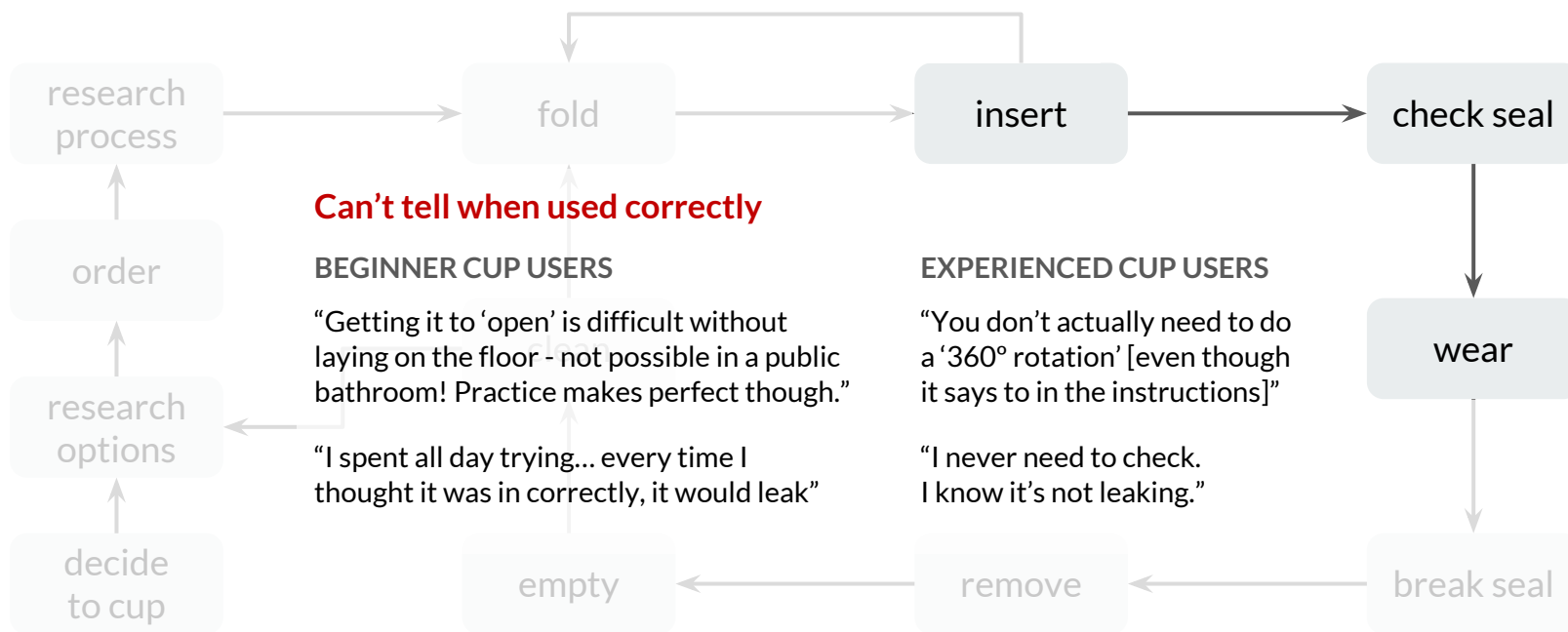
THREE. Journey Map



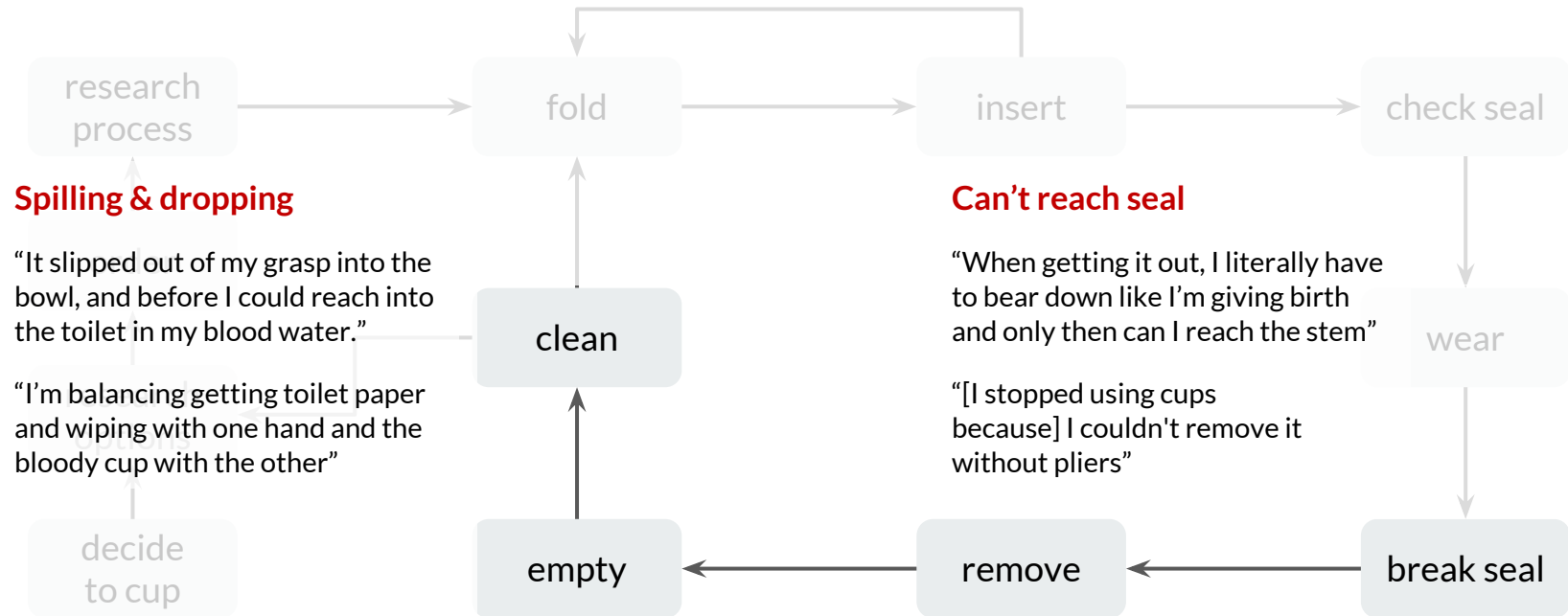
THREE. Journey Map



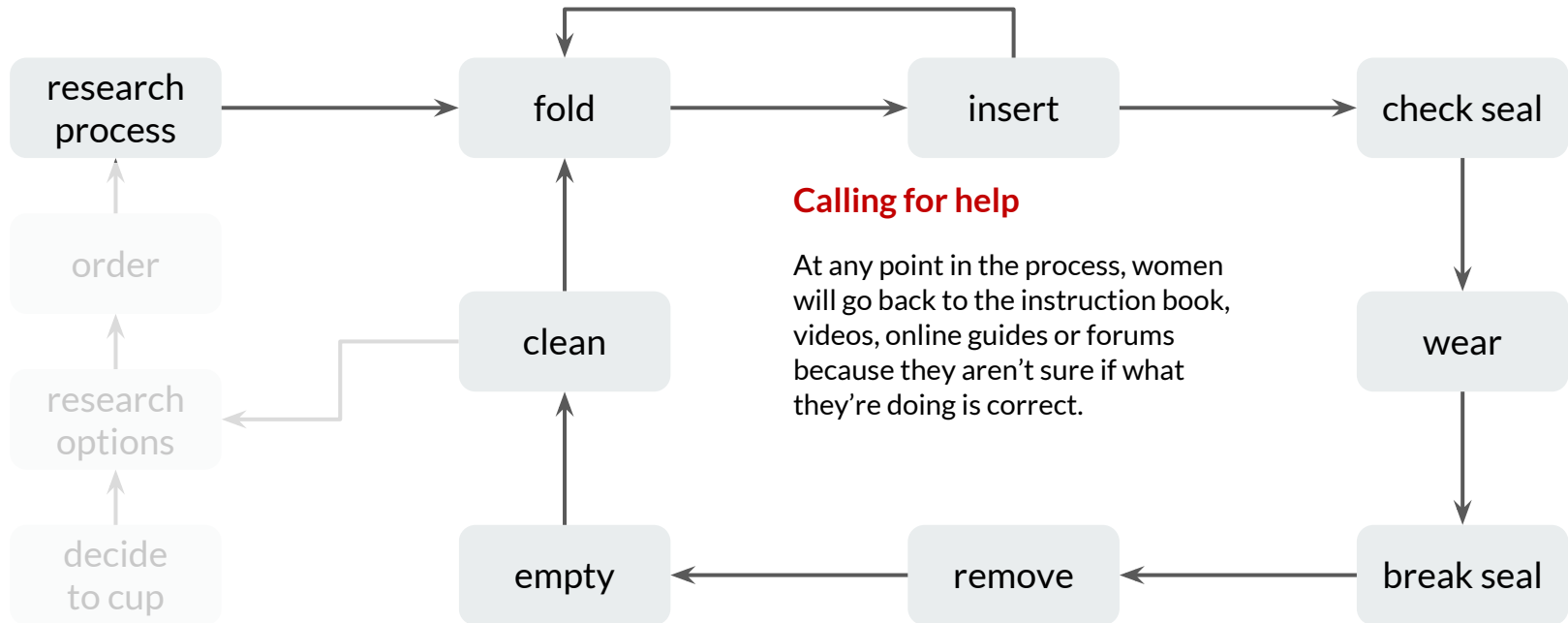
THREE. Journey Map



THREE. Journey Map



THREE. Journey Map



THREE. *Journey Map*

Insights & Tensions

- 1.** A Goldilocks cup exists for everyone, but finding it requires trial, error, and measurements that are hard to determine.
- 2.** Even if women are intrigued by the sustainability of the cup, the stigma surrounding periods can make them uncomfortable with a more hands-on process.
- 3.** Even if women are comfortable with their body and insertion of a cup, it can be messy to insert since there's typically blood at the entrance.
- 4.** It's hard to tell when a cup is placed correctly when first starting, so beginner cup users will solicit advice from more experienced friends.
- 5.** Breaking the seal requires women to reach deep to find the top of the cup. This can cause discomfort and blood to get on her hands or spill down her arm.
- 6.** It is easy to spill or drop the cup when emptying, causing a mess that is especially difficult to clean in public.

FOUR. *Competitive Analysis*

Competitive Analysis of Cups

There are over 100 cups available today. While each cup has a different size, firmness, height, and shape, most of them function in similar ways.

There are a few that address some of the pain points in the journey map. There are also services like putacupinit.com to help with fit before purchasing a cup.



FOUR. *Competitive Analysis*

Leading Competitors

Lily B Cup

Rolls as thin as a tampon (insight 2)



Flex Cup

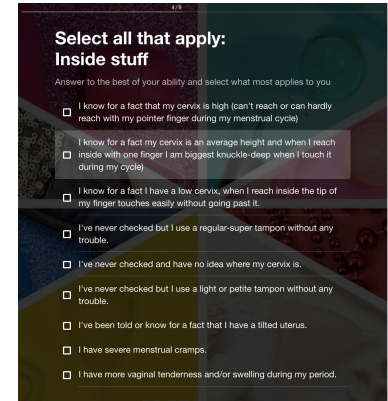
Release stem to break the seal (insight 5)



Femmycycle
Spill-proof top
(insight 6)



Put a cup in it
Quiz to find cups that fit body (insight 1)



FIVE. *Opportunity Areas*

Product & Service Opportunity

PRODUCT

A cup that can be removed, emptied & reinserted in a public bathroom without getting blood onto her hands.

We believe that an improved cup can address insights 3, 5 & 6. Although these get better with experience, using a cup in public is a challenge for all cup users.

SERVICE

A direct-to-consumer (DTC) model that allows first time users to find their Goldilocks cup and an app to guide them through the first few uses.

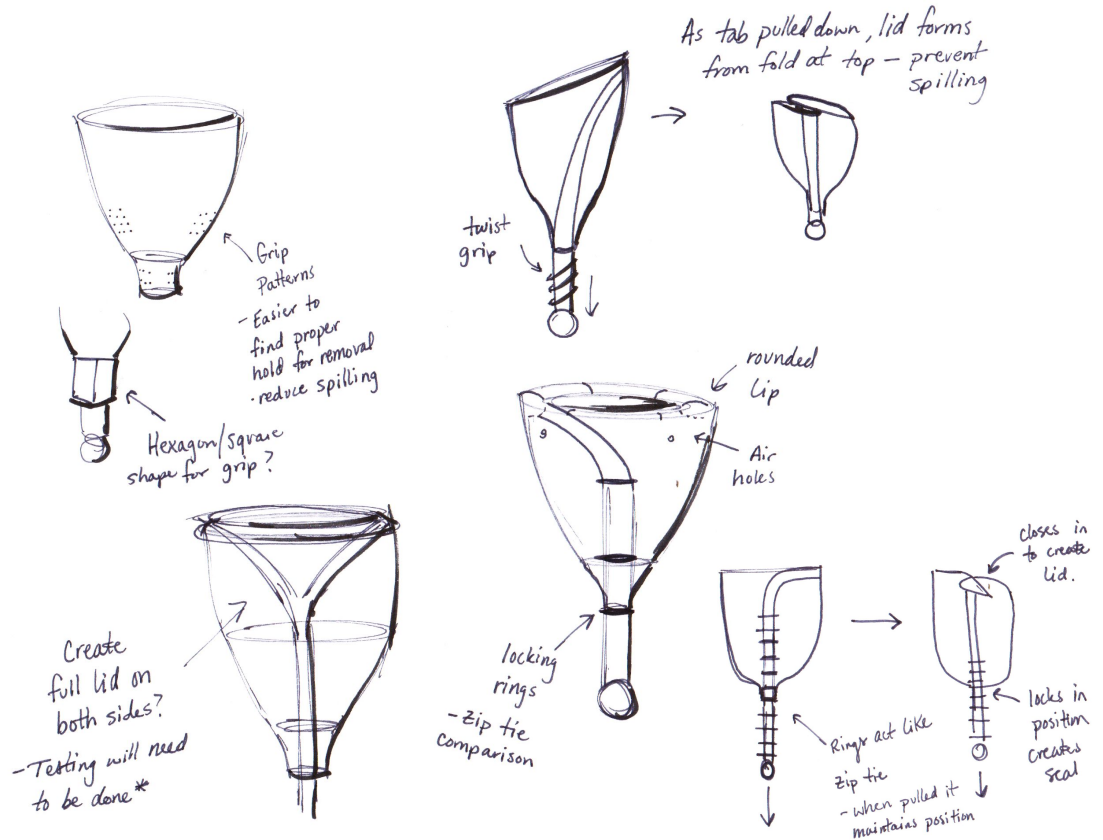
We believe that we can tackle insights 1, 2 & 4 by creating a service that helps women feel confident in their cup before they invest in it.

SIX. Proof-of-Concept

Product

A locking pull stem forms a partial lid and spout. A patterned grip assists with keeping a firm hold on the cup. The stem **twists to release**, returning the cup back to a fully opened position.

We plan to continue exploring ways to partially or fully enclose the top of the cup and ways to release the locking rings.



SIX. Proof-of-Concept

Service

We want to continue exploring which services would address concerns that cup users have to minimize the learning curve so that she can be sure that she's making the right and most sustainable choice.



QUIZ

Estimates the right size and adds confidence to the buying experience



STARTER PACK

Includes an easy to apply lube and period underwear to ease fear of initial leaks



GUIDE APP

Interactive app to guide the first few times to reduce uncertainty

SEVEN.

Next Steps

1. Create works-like prototypes of our cup.
2. Conduct in-depth user testing of cup.
3. Iterate cup prototype based on testing.
4. Detail service prototype.
5. Test & iterate service prototype.

Appendices

All documents can be found here: <https://bit.ly/2XISp1O>

A. Period Protection Competitive Analysis

[Competitive Analysis Comparison](#) (Traditional Period Protection- Appendices Link)

[Menstrual Cup Comparison Chart](#) (Put A Cup In It- www.putacupinit.com/chart)

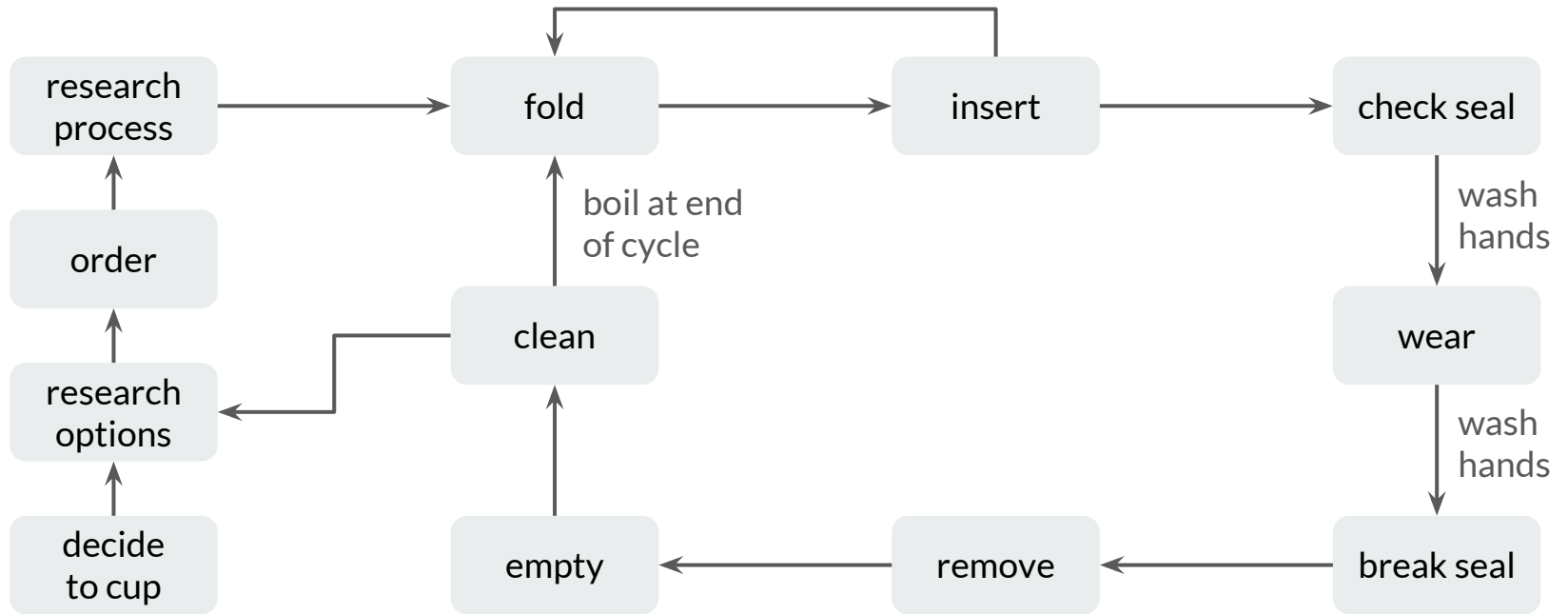
[History of Periods](#) (Allure, Informational Video- www.youtube.com/watch?v=hc-mEXEumy0)

B. User Research

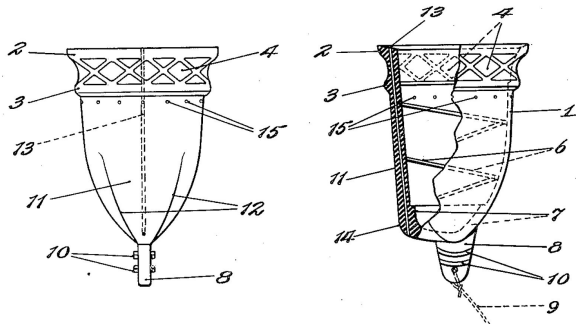
[Survey Results](#) (Appendices Link)

[Menstrual Cup Subreddit](http://www.reddit.com/r/menstrualcups) (Reddit- www.reddit.com/r/menstrualcups)

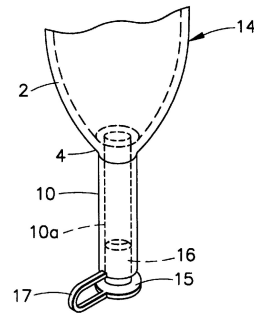
B. Full Journey Map



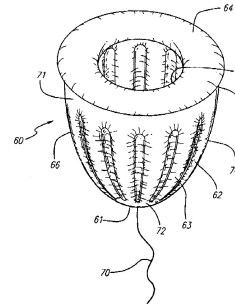
C. Intellectual Property Research



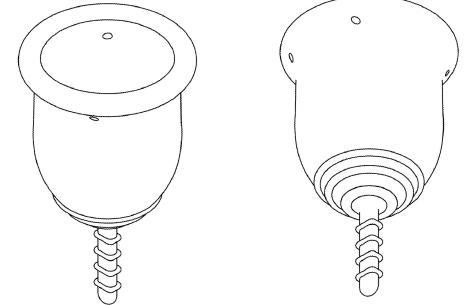
First menstrual cup (1950)
US2534900 Chalmers



End cap plug (1998)
US5827248 Crawford



Inflatable for easy
insertion (1999)
US5947992 Zadini



Cup design (2015)
USD746452 Petrova

Sources

1. <https://www.organiccup.com/blog/powerful-environmental-reasons-to-switch-to-a-menstrual-cup/>
2. <https://slate.com/technology/2010/03/what-s-the-environmental-impact-of-my-period.html>
3. <https://hbr.org/2018/12/the-story-of-sustainability-in-2018-we-have-about-12-years-left>
4. <https://hellogiggles.com/lifestyle/health-fitness/long-menstrual-cup-lasts/>
5. <https://lenacup.com/pages/user-guide>
6. <https://thewirecutter.com/reviews/best-menstrual-cup/>
7. <https://putacupinit.com/quiz/>
8. <https://www.intimina.com/lily-cup>
9. <https://flexcup.com/>
10. <https://femmycycle.com/product/femmycycle/>
11. <https://journals.sagepub.com/doi/pdf/10.1111/1471-6402.00051>
12. <https://carewaywellness.com/shop/patient-room-supplies/feminine-hygiene/sanitary-pads-tampons/sanitary-pads-with-adhesive-wings>
13. <https://www.mylola.com/products/cardboard-applicator-tampons>
14. <https://www.youtube.com/watch?v=o9fPUfm-uYE>
15. <https://deepblue.lib.umich.edu/bitstream/handle/2027.42/94481/j.1542-4774.2012.01090.x.pdf?sequence=2&isallowed=y>
16. <https://www.cnn.com/2015/11/13/health/whats-in-your-pad-or-tampon/index.html>