

**HOW MIGHT WE
DELIGHTFULLY REDUCE
SINGLE-USE UTENSILS
AMONGST US URBANITES**

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Parsons at The New School
Strategic Design & Management Master's Thesis
Design Thinking Process: Appendix
Fall 2017 - Spring 2018

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WHAT IS • WHAT IF • WHAT WOWS • WHAT WORKS

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Phase One: **WHAT IS**
Research

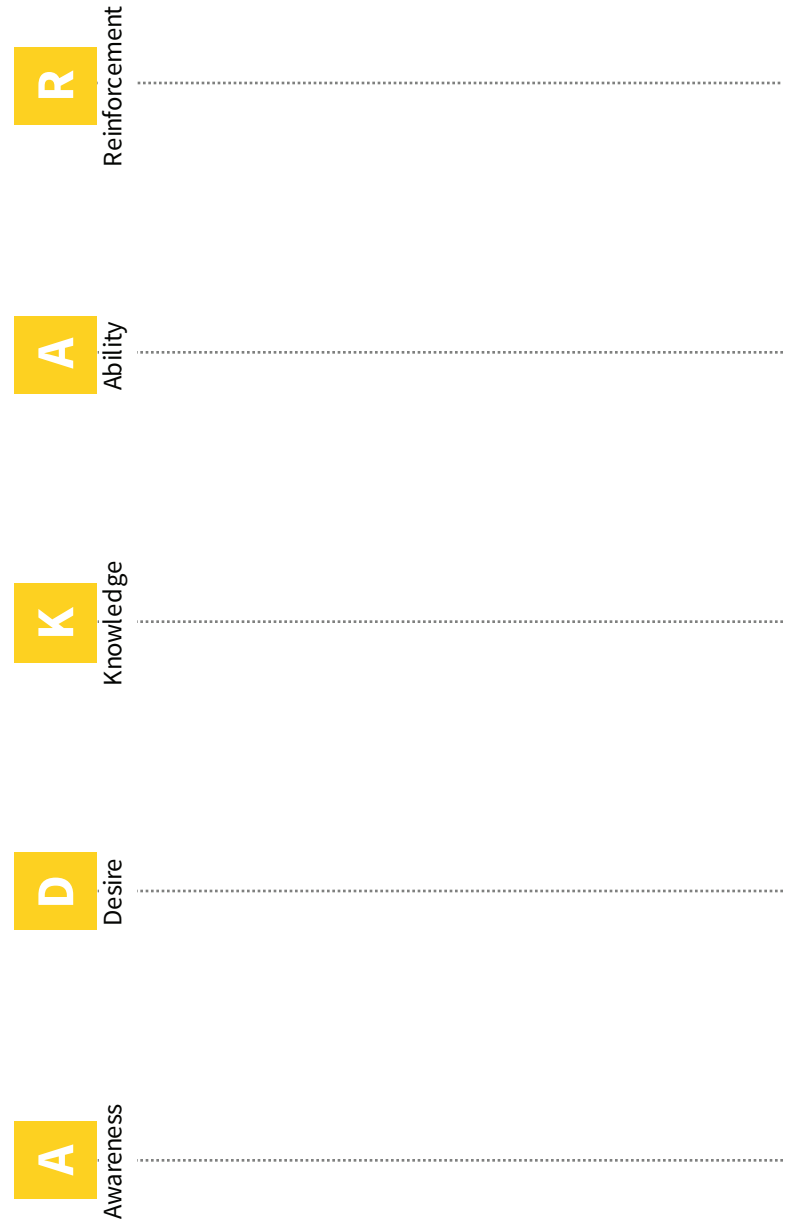
ADKAR

The Prosci ADKAR model for organizational change management is a flexible methodology I've found applicable to most goals for change in human behavior.

It is commonly used to assess and plan a known goal for behavior change. I decided to broaden its use and leverage it for analyzing and directing my research, in hopes of developing a solution that addressed outlying user needs in adoption by design, not just post-design communication.

In addition, since my thesis is focused on the quality of delight, I modified the framework to show by vertical scale the type of experience the user has at each phase.

You can find more detail about the ADKAR model with materials online at <https://www.prosci.com/adkar/adkar-model>.



USER SURVEYS

I conducted two user surveys through Survey Monkey, the first open to all who ate outside the home during the day and the second, a subset from the first of those who stated they chose disposable utensils over reusable options always or sometimes.

Questions from Survey 1 (113 respondents)

1. Which words best describe you?
 - Planner
 - Improviser
 - Artistic
 - Practical
 - Accessorizer
 - Minimalist
 - Environmentalist
 - Health-focused
 - Resourceful
 - Time-crunched
 - Balanced
 - Trendy
 - Classic
 - Low-maintenance
 - Other
2. What does the word delightful mean to you?
3. Do you have a dishwasher at your office or home?
 - Both at my office and home
 - Only at my office
 - Only at my home
 - No
4. What is your age bracket?
 - Under 18
 - 18 - 21
 - 22 - 29
 - 30 - 39
 - 40 - 49
 - 50 - 59
 - 60 - 64
 - 65 or older
5. Where do you work?
 - Austin
 - Chicago
 - Houston
 - Los Angeles
 - New York City
 - San Francisco
 - Suburb/town
 - Other large city
6. In which setting do you most often work during the daytime?
 - Home
 - Office/school building
 - Co-working
 - Coffee shop/ free public space
 - Other
7. How do you most often commute to work?
 - Personal car
 - Ride share/driver
 - Public/mass transportation
 - Walk or bike
 - Other
8. What do you carry with you to work?
 - Backpack/messenger bag
 - Briefcase/tote
 - Laptop
 - Tablet
 - Purse
 - Lunch bag/box
 - Gym bag
 - Other
9. What do you consider when buying/bringing lunch during the week?
 - Convenience
 - Taste
 - Health
 - Value
 - Portability
 - Loyalty/rewards points
 - Company values
 - Other

10. When do you usually plan for lunch?
 - Weekend before
 - Night before
 - Morning of
 - When I feel hungry

11. During the last full work week, how many days did you eat out/ order in lunch? If you had an abnormal week due to vacation/ travel/etc., please use the most recent typical work week you can remember.
 - 0
 - 1
 - 2
 - 3
 - 4
 - 5

12. How many days of the above week did you use disposable utensils for eating lunch?
 - 0
 - 1
 - 2
 - 3
 - 4
 - 5

13. How often do you bring leftovers home from lunch?
 - Never
 - Sometimes
 - Always

14. Do you carry reusable utensils?
 - Yes
 - No
 - Sometimes

15. Please explain your answer to question 14. Why/why not and what are the factors that play into your choice?

Questions from Survey 2 (24 respondents)

1. Do you use reusable utensils outside the home? (e.g. lunch during the work week)
 - Never
 - If they're provided
 - Sometimes I'll bring my own
 - Always

2. Do you own a set of dedicated reusable utensils for use outside the house?
 - Nope
 - Sorta--I reuse whatever was given to me last until it breaks/I lose it
 - Yes
 - Other

3. Which age bracket do you fall into?
 - Under 18
 - 18 - 21
 - 22 - 29
 - 30 - 39
 - 40 - 49
 - 50 - 59
 - 60 - 64
 - 65 or older

4. That person with the reusable utensils...How likely are you to:
 - Ask them for directions
 - Ask them about their day
 - Compliment them
 - Invite them to coffee
 - Invite them to dinner
 - Go to a party with them
 - Be interested in them romantically
 - Avoid them
 - Ignore them

5. Can you describe them a little bit in your own words?

6. What is frustrating about using reusable utensils, if anything?

7. I would be more likely to enjoy using reusable utensils if they were (consider each criteria individually):
 - More easily available...because they are hard to find
 - Multi-functional...I want added value
 - Better looking/designed
 - More comfortable to use
 - Easily cleaned...or daresay, self-cleaned
 - Bundled in a carrying case
 - More popular with celebrities
 - Cheaper than current options
 - Smaller than a normal utensil
 - Other

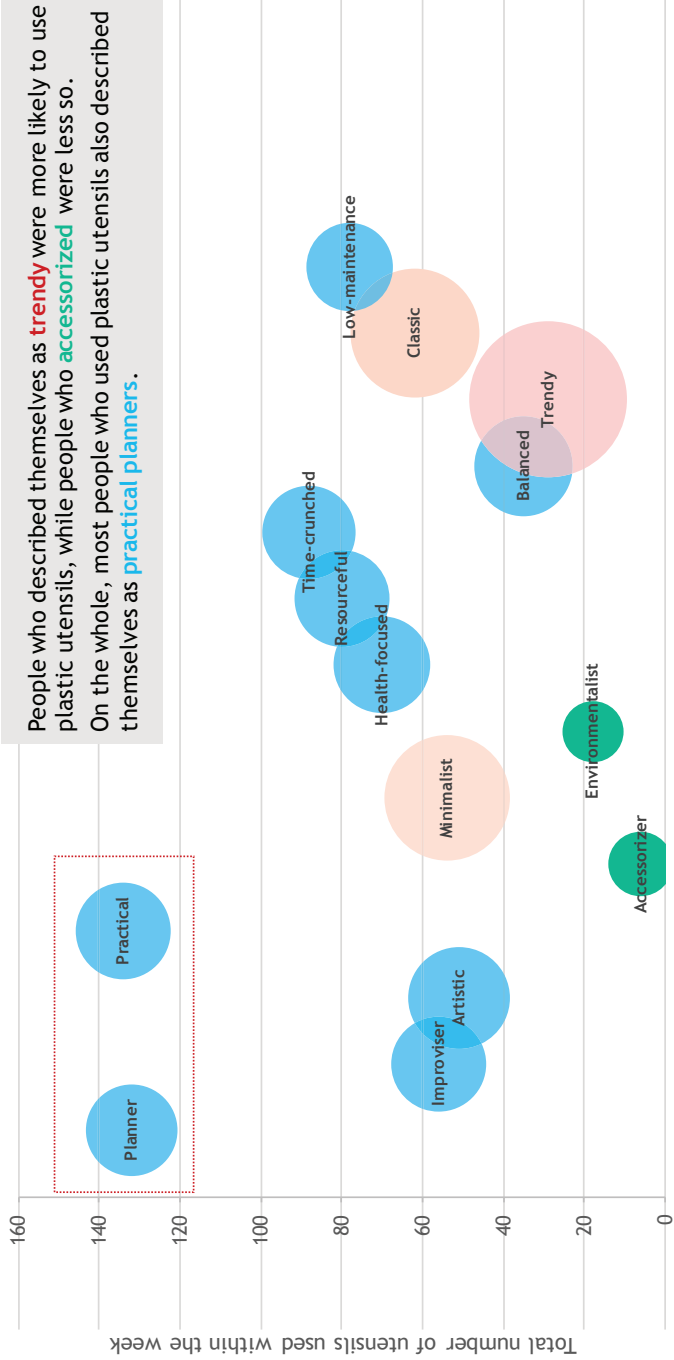
8. If switching to reusable utensils meant you would be making a positive impact in the world, how would you most like to see it expressed?
 - Individual impact (you know the average CO2 saved with each purchase)
 - Aggregate impact (you are notified what the collective impact made of the product's customers, e.g. 1 million lbs. of CO2 saved)
 - Comparative impact (you have made a certain impact in relation to others individuals in your city)
 - Other (please specify)

9. If a reusable utensil brand was part of a "1 for 1" purchase program (e.g. TOMS shoes gives one pair to people in need with each purchase), how much more likely would you be to buy?
 - I don't pay attention to those programs
 - Good to know, but it wouldn't affect my decision to purchase/not to purchase
 - I would give extra consideration
 - This would be a game changer—I'd likely buy
 - I was buying anyway—this would make me feel even better about my purchase
 - Other

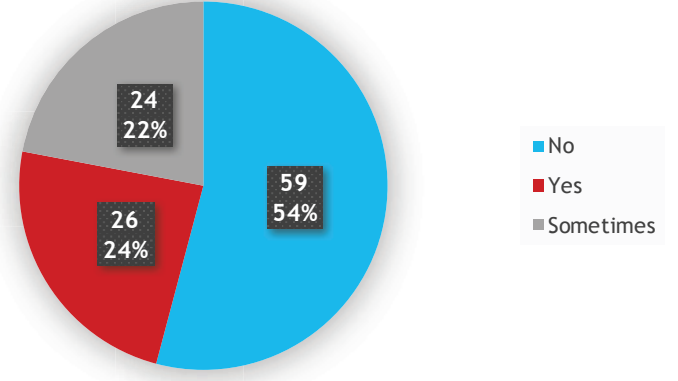
10. Anything additional thoughts or ideas you would like to add?



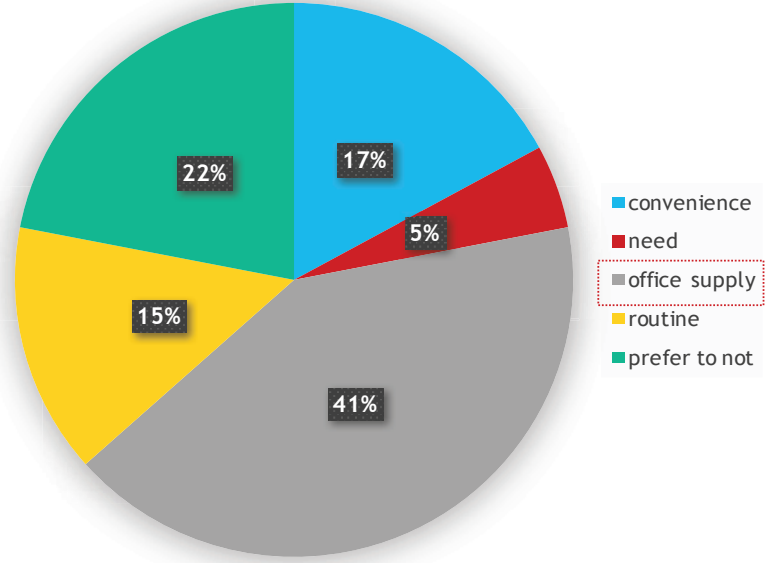
People who described themselves as **trendy** were more likely to use plastic utensils, while people who **accessorized** were less so. On the whole, most people who used plastic utensils also described themselves as **practical planners**.



Do you carry reusable utensils?



Why do you use plastic utensils?



INTERVIEW GUIDES

To elicit nuanced, but relevant responses, I constructed two interview guides to be used flexibly in each interview, depending on which profile they were.

User Interview Guide

1. What is a desirable lunchtime experience during the workweek? What leads up to it and follows it?
2. When I say portable reusable flatware, what comes to mind?
3. If you do have reusable flatware, what are reasons you do carry it? What are reasons you do not?
4. If you use plastic cutlery, what are the benefits to you? Anything that would improve that experience?
5. Are you ever given plastic cutlery when you do not need it or ask for it? What do you do with it (return, save, dispose)?
6. What are your top concerns with choosing your food?
7. If you knew your choice in cutlery was the difference between clean/contaminated water and prosperity of sea life, what decisions might you make? Would they be different? Do you think they would be consistent?
8. What might sway your decision to carry cutlery vs. use disposable? More information, norms, promotions/ discounts, fashionable, designed alternatives, added-benefit (e.g. swiss army knife), lightweight, self-cleaning, etc.
9. What can you tell me about Allbirds or Everlane?
10. What issues do you care about?
11. If you were to have reusable utensils for work (or if you do), would you prefer to carry them or keep them there? Why?

Provider/buyer Interview Guide

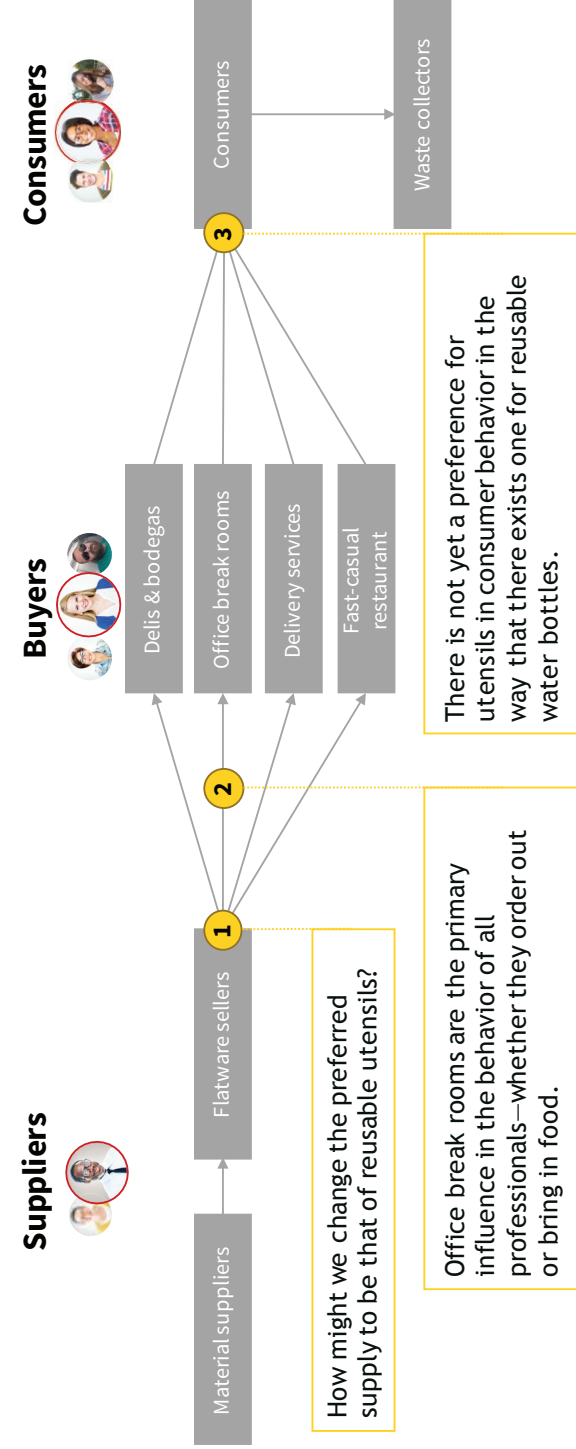
1. What is the scope of your role in buying supplies? (budget, goals, number of people, locations?)
2. Who influences your decisions?
3. What kitchen items do you regularly provide?
4. What do you/don't you provide flatware?
5. What are your top criteria in the search?
6. What do you currently provide? What have been other options?
7. What types of vendors do you consider? Products, subscription/services, etc.
8. If you knew you could have and report a large economic impact by switching to a renewable or waste-free alternative, how far would you go to choose this?
9. If you were to provide reusable, non-plastic cutlery to each employee, what else might need to change/be provided?

STAKEHOLDER DIAGRAM

Throughout research, constructing and understanding the stakeholders and their decision points helps guide more in depth research and ideation.

Verification and editing of this diagram was done at each step. To streamline research as commonalities were found, three stakeholder buckets were established. Detail and motivations were documented further in personas.

I also showed key inflection points as they surfaced during the research process. It is important to note that the numbers for each inflection point are meant simply to identify each--the order in which they can be addressed through solutions may be different, depending on what concept is developed.



PERSONAS

From interviews and survey results, as well as the third party desk research, indicated the following primary personas. The red rim indicates this persona was chosen to further develop through a user journey map.

SUPPLIERS



Lisa
42, Female
Product pusher

How can I increase margins this year? New customers, lowering the cost...those are the guaranteed wins. Do I have it in me to try to push a new product this year? These environmentalist are pushing harder, but in the end, people gotta eat...including me.



Peter
54, Male
At-your-service provider

We have contracts locked in for the next 5 years and have worked hard to get on the approved vendors list of some major companies.

I am all for trying new things, but I've found it needs to resonate with our big customers—one-offs are hard to provide at scale.

PROVIDERS/BUYERS



Diane
32, Female
The office mom

Everything you need during the day, I've already anticipated and provided. "Invisible work" is my job—small changes take much more effort than anyone knows.

My personal preferences and voice are often muted in preference for the PC, corporate solutions—it's easier to get approved and makes my job easier the fewer feathers that are ruffled



Felicia
28, Female
General Manager

I climbed the ladder from order taker to...well...larger order taker?

There is never a dull day and I always feel the pressure from corporate for our store to do better each month. I love the fun stuff my employees propose like new music mixes and décor, but larger business ideas tend to stay just as such. Why fix what ain't broke?

Someday I'll open my own business—this is great experience for now.



Dale
32, Male
Faceless delivery guy

Is a tip that hard to give for someone dodging traffic for you to have a still-hot gourmet meal?
What's the fastest route...I need to get as many deliveries in because I'm short on cash. I'd rather you accidentally have utensils and not need them versus the alternative. I need good tips.

CONSUMERS



Kiera
24, Female
On-the-go getter

Driven and making a stamp on the world. I need practical solutions that fit into my tightly scheduled life. Appearance and practicality are huge influencers, with networking to be done, bosses to impress, and goals to be met.

I feel good about my decisions to recycle and tend to buy local, but it is secondary to my lifestyle demands. Information needs to be bite-sized. and she values direct influence and results—not necessarily what "could be."



Sam
16, Female
The independent dependent

Some might call me "tragically hip." I like to think I'm highly principled and aware of broad environmental issues. Only monsters aren't. (Though checking in, action to back this up seems to be lacking)
Yes, I'm concerned with my future, but living in the now is so important to me. I'm stretched a little thin with AP classes, SAT prep, and soccer practice...food has to be easy to carry, convenient, and uninvolved. The biggest thing to happen to me this year is I got my driver's license and this freedom— it's addictive. :D



Ned
30, Male
The office environmentalist

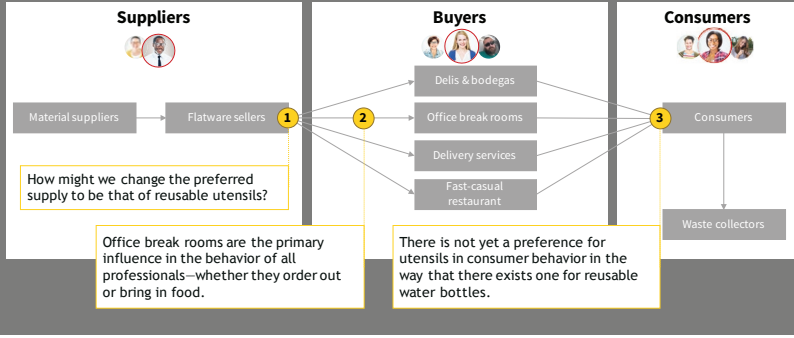
Well-meaning and friendly, but don't get me started on going green. The environment is suffering because of selfish decisions I see my colleagues and strangers make.

I want to be friends with my work mates and I feel like at times I'm making headway, but others seem to be turned off by my comments about our need to be greener. I want to be accepted, but I won't abandon my values.

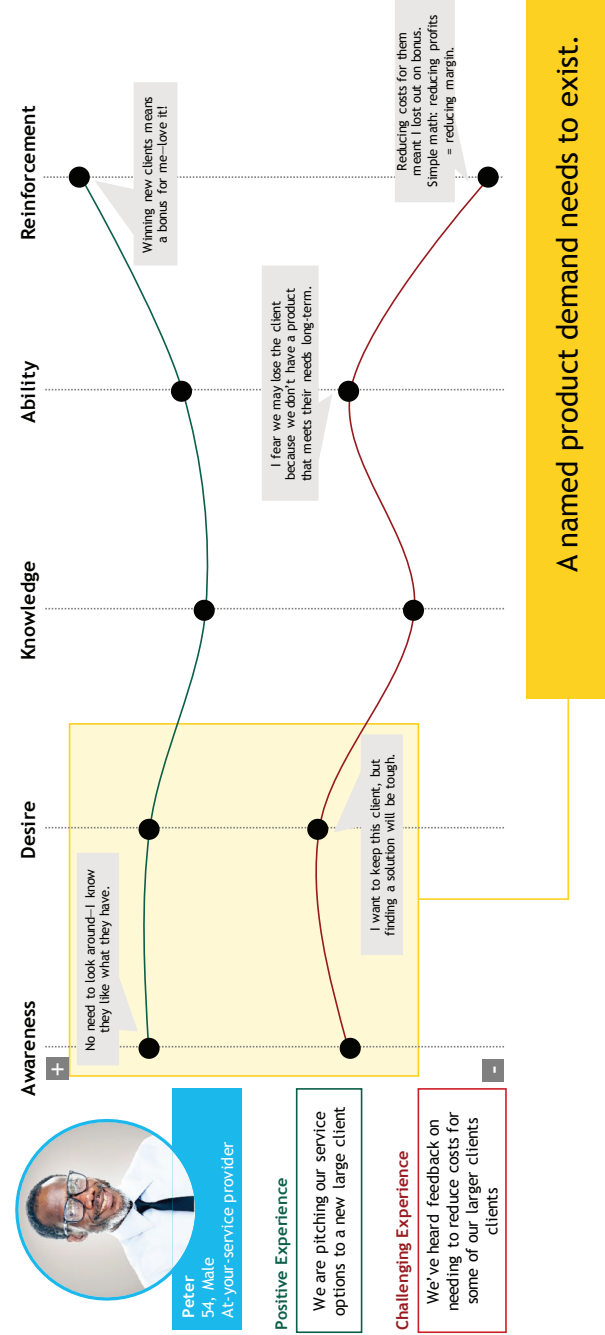
JOURNEY MAPS

Three personas were chosen to develop further with journey maps. Each showed the primary decision context twice for providing, buying, or consuming plastic utensils--once with most optimal journey and once with the least.

Additionally, each journey map had the stakeholder map's inflection point most relevant to them highlighted in yellow. This showed the inflection point in context of individual adoption of a change in behavior and where on an individual level that intervention should occur.



We're looking to increase margins and ideally improve customer experiences this year...



It's time to do our quarterly budget allocation for the office...



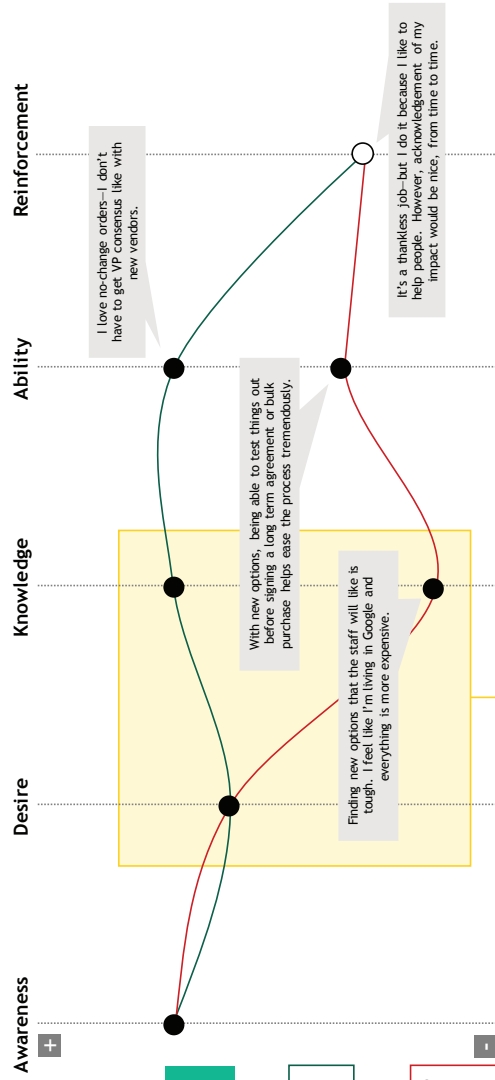
Diane
32, Female
The office mom

Positive Experience

Seems like business as usual—I'll go with what we've done in the past

Challenging Experience

We need to make a change to our overall order to reduce costs/environmental impact, per corporate...



Intervening here will require a cost benefit and/or a proven shift in employee behavior and needs.

Lunch time is the best time of day!



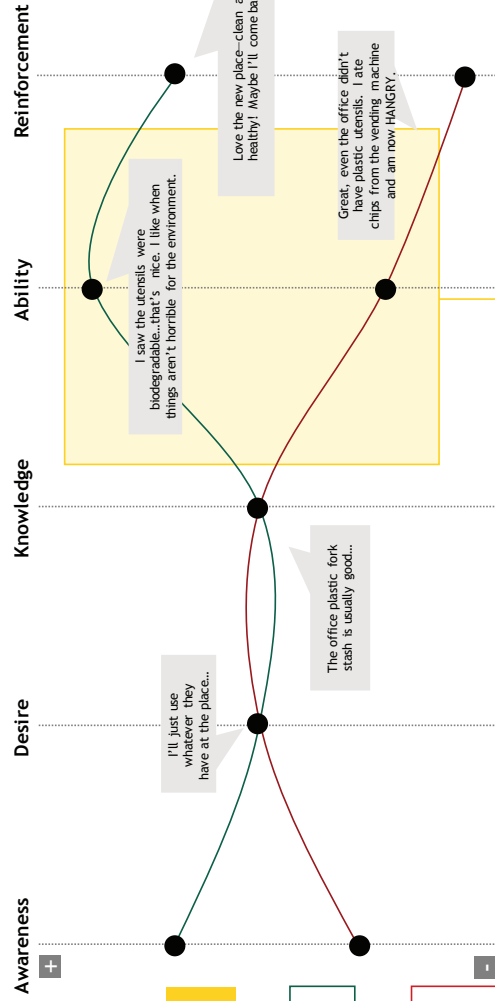
Kiera
24, Female
On-the-go getter

Positive Experience

Going to order bowl for lunch from that new place I saw near here—excited!

Challenging Experience

I hate leftovers. I hate eating at my desk. I hate lunch meetings. Today, this is my life.



Finding a convenient, delightful way to give the right option at the right time is key.

METAL UTENSIL COST COMPARISON

For this basic cost comparison, I made the following assumptions, based on my survey, 3rd party research and product catalogs:

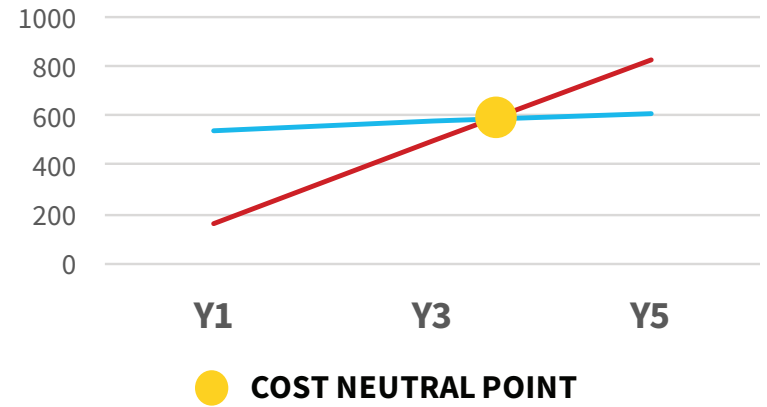
For disposable:

- Each employee would use an average 4 utensils a week, forks being used 2 out of every 3
- Each employee would be in the office for 50 weeks of the year

For reusable:

- Each employee would have access to a fork, spoon, and knife set, plus additional for flexibility within the year
- 20% of the utensil stock would need to be replaced every two years
- Larger offices would need a higher grade dishwasher (\$900)

50 Employees



Plastic				
Employees	YR1	YR3	YR5	
A2	=SUM(E4:E6)	=A3*3	=A3*5	
Item	Amount	Amount /unit	Cost/unit	Total
Forks	=A2*(2)*weeks at office	1000	15	E4
Spoons	=A2*(1)*weeks at office	1000	15	E5
Knives	=A2*(1)*weeks at office	1000	15	E6

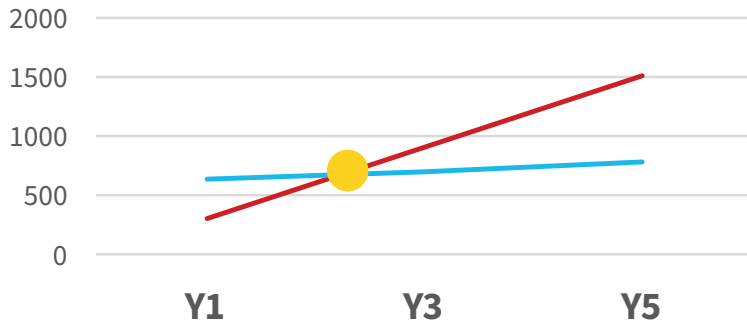
Reusable				
Employees	YR1	YR3	YR5	
N2	=SUM(R4:R5)+R7	=(SUM(R4:R5)*1.4) + R7	=(SUM(R4:R5)*1.8)+R7	
Item	Amount	Amount/unit	Cost/unit	Total
Forks	=N3*(1.2)	36	15	R4
Spoons	=N3*(1.2)	36	15	R5
Knives	=N3*(1.2)	36	15	R6
1XItem	Amount	Amount/unit	Cost/unit	Total
Dishwasher	1	1	450	R7

Plastic				
Employees	YR1	YR3	YR5	
50	165	495	825	
Item	Amount	Amount/unit	Cost/unit	Total
Forks	5000	1000	15	75
Spoons	2500	1000	15	45
Knives	2500	1000	15	45

Reusable				
Employees	YR1	YR3	YR5	
50	540	576	612	
Item	Amount	Amount/unit	Cost/unit	Total
Forks	60	36	15	30
Spoons	60	36	15	30
Knives	60	36	15	30

1XItem	Amount	Amount/unit	Cost/unit	Total
Dishwasher	1	1	450	450

100 Employees

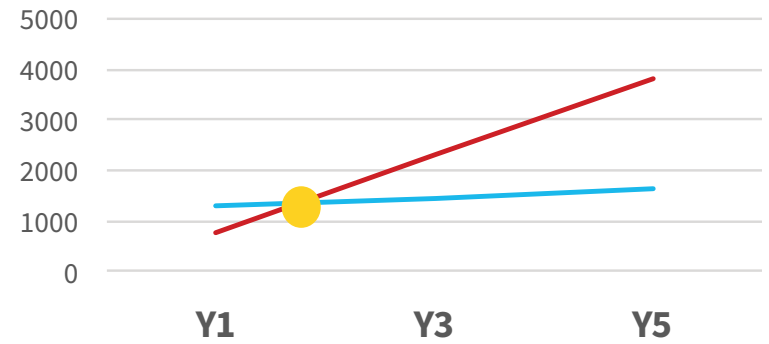


● COST NEUTRAL POINT

Plastic				
Employees	YR1	YR3	YR5	
100	300	900	1500	
Item	Amount	Amount/unit	Cost/unit	Total
Forks	10000	1000	15	150
Spoons	5000	1000	15	75
Knives	5000	1000	15	75

Reusable				
Employees	YR1	YR3	YR5	
100	630	702	774	
Item	Amount	Amount/unit	Cost/unit	Total
Forks	120	36	15	60
Spoons	120	36	15	60
Knives	120	36	15	60
1XItem	Amount	Amount/unit	Cost/unit	Total
Dishwasher	1	1	450	450

250 Employees

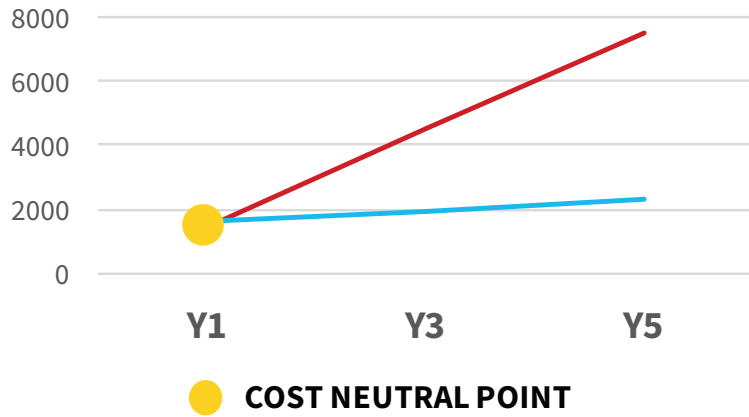


● COST NEUTRAL POINT

Plastic				
Employees	YR1	YR3	YR5	
250	765	2295	3825	
Item	Amount	Amount/unit	Cost/unit	Total
Forks	25000	1000	15	375
Spoons	12500	1000	15	195
Knives	12500	1000	15	195

Reusable				
Employees	YR1	YR3	YR5	
250	1305	1467	1629	
Item	Amount	Amount/unit	Cost/unit	Total
Forks	300	36	15	135
Spoons	300	36	15	135
Knives	300	36	15	135
1XItem	Amount	Amount/unit	Cost/unit	Total
Dishwasher	1	1	900	900

500 Employees



Plastic				
Employees	YR1	YR3	YR5	
500	1500	4500	7500	
Item	Amount	Amount/unit	Cost/unit	Total
Forks	50000	1000	15	750
Spoons	25000	1000	15	375
Knives	25000	1000	15	375

Reusable				
Employees	YR1	YR3	YR5	
500	1665	1971	2277	
Item	Amount	Amount/unit	Cost/unit	Total
Forks	600	36	15	255
Spoons	600	36	15	255
Knives	600	36	15	255
1XItem	Amount	Amount/unit	Cost/unit	Total
Dishwasher	1	1	900	900