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Exploring Interactions
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chemicals are harmful to the environment

aquatic life especially is affected!
chemicals disrupt reproductive
system of animals

toxic fumes pollute air at home

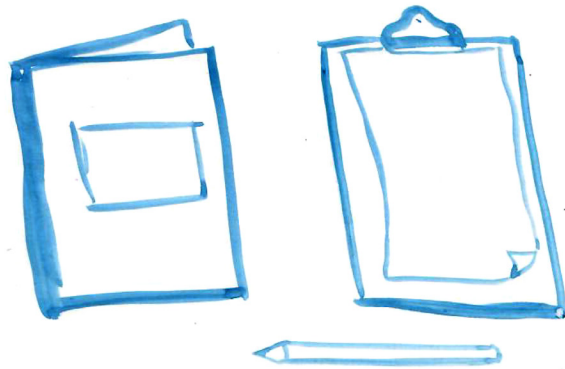
the air inside the average
home is 2-5 times more
polluted than outside due to
the toxic fumes from cleaning
products.

large carbon footprint

through production, and
transportation; not to mention
plastic waste.



RESEARCH QUESTIONS



- Why do people choose the cleaning products that they use?
- How do they interact with these products during their cleaning process?
- What motivates people to use eco-friendly cleaning products?
- What hinders people from making and using homemade cleaning products?

RESEARCH INSIGHTS

(Green) cleaning products are seldom topics of conversation

cleaning products are often stowed away out of sight



RESEARCH INSIGHTS

Importance of visual feedback while cleaning

“My brother gave me a home-made soap, but I am not sure if it works because it doesn’t foam”



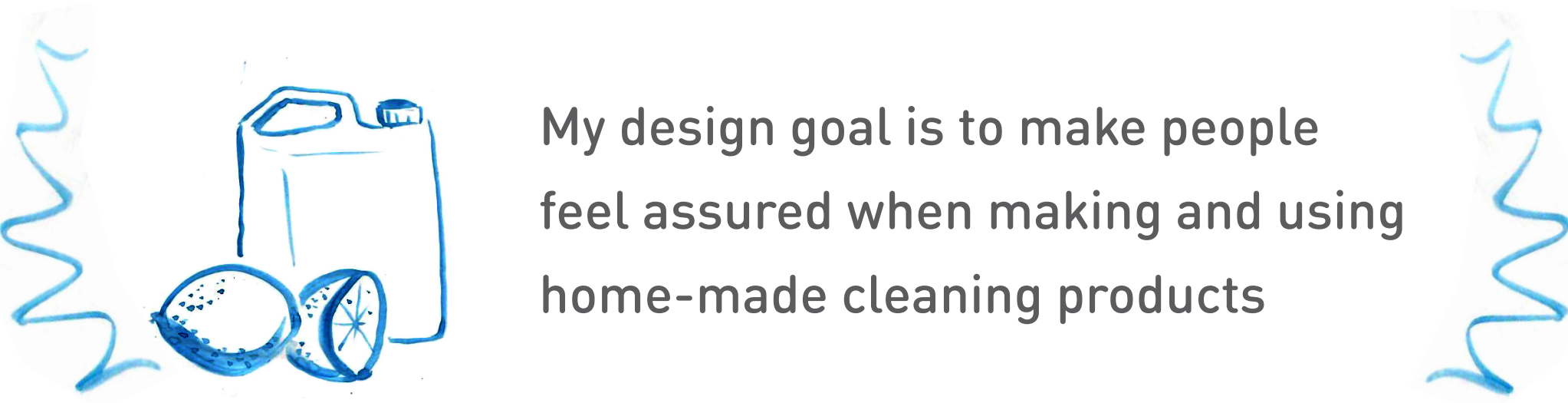
RESEARCH INSIGHTS

Home-made cleaning products are not used because...

- lack of knowledge of the possibility
- they are not as convenient as commercial ones
- takes time, effort and know-how
- lack of certainty of how and for what to use them



DESIGN GOAL



My design goal is to make people feel assured when making and using home-made cleaning products

Users: environmentally conscious people with the desire to reduce their environmental footprint

Location: at home

Situation: daily-weekly surface cleaning

INTERACTION VISION



The interaction with my product should be like cooking your mom's recipe for the first time with her on the phone to guide you

guiding | verbal assurance | following a recipe | step-by-step instructions | feedback through smells and visually



The interaction with my product should be like throwing spaghetti against a wall to make-sure they are cooked Al Dente

playful | visual feedback | simple | instant confirmation

DESIGN DIRECTION: CLEANING PRODUCT ASSEMBLING SET

- What are the positive and frustrating interactions with homemade cleaning products?
- What do amateur cleaners need to get started? What ingredients, products, information are needed?

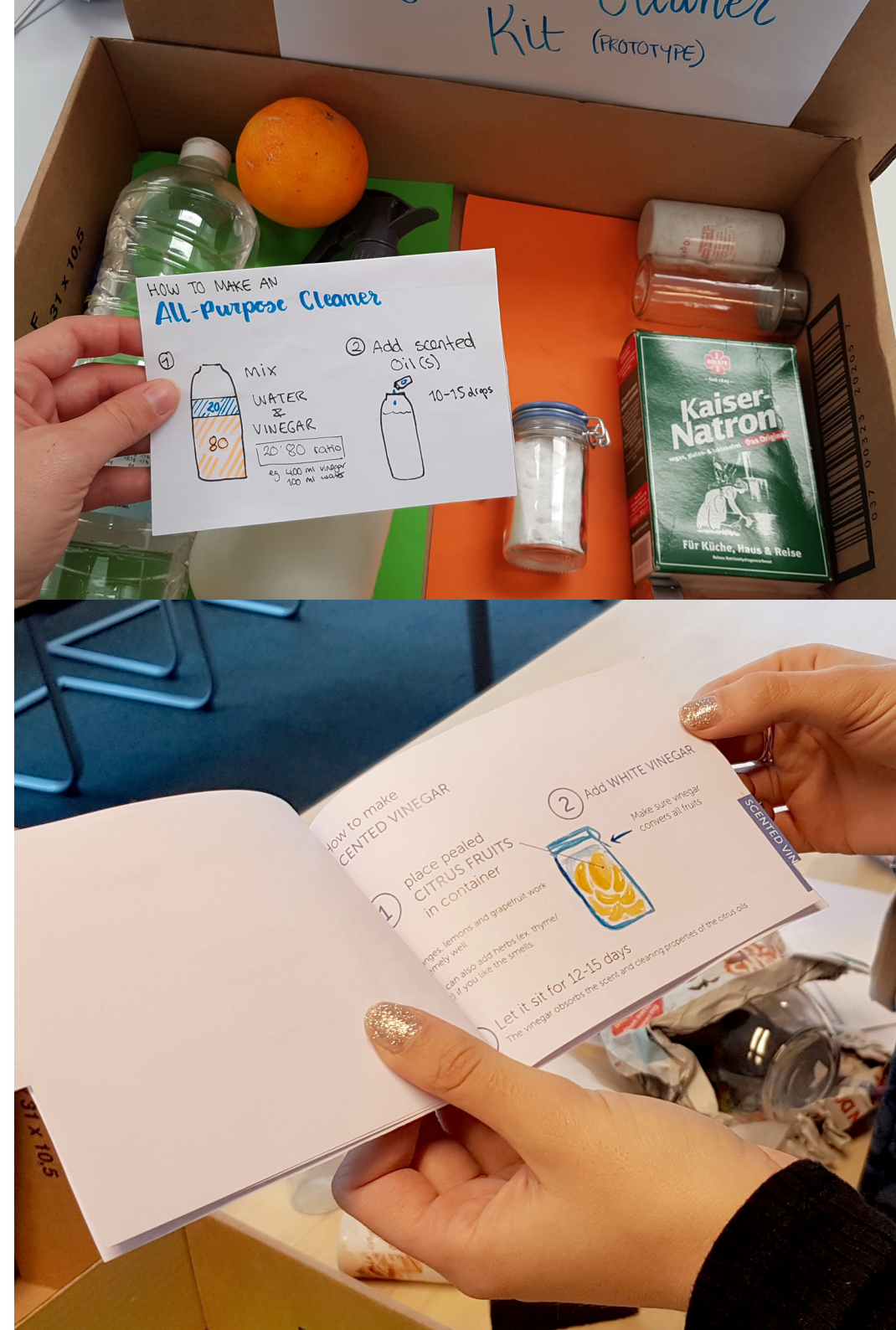


PROTOTYPING INSIGHTS

Information needed:

1. Mind set shift: WHY greener cleaning
2. How to make the cleaner(s)
3. What to clean with it (do's and dont's)

Too many choices create uncertainty



PROTOTYPING INSIGHTS

Importance of scent

"The smell of vinegar is revolting! Even if it cleans well, I would not use it!"

Advantages of transparent containers

"This looks really appealing, I thought it was a fancy drink!"



PROTOTYPING INSIGHTS

Users want reassurance to know if they made the cleaner correctly.

"I have no idea if I am using the right amount?"



FINAL PROTOTYPE



water

scented vinegar

What can you use
vinegar cleaner
vinegar is an all-
purpose cleaner. It can be used on
the bathroom, kitchen, windows,
fridge, microwave, and much more.
vinegar breaks down mildew, grease,
a mild antiseptic, mineral deposits,
mineral deposits, scum and more.

1

Fill the jar with
citrus peels

you can use:
oranges, lemons, limes,
grapefruit and/or mandarin

2

Add white
vinegar

make sure the vinegar
covers the peels completely

optional:
to adjust the scent you can add herbs
such as mint, rosemary or thyme
you can add 15-20 drops of any
essential oils you like to smell. Citrus
oils have antifungal, antibacterial and
natural cleaning properties.

Cleaning Company

INSIGHTS TO DESIGN DECISIONS



importance of
visual feedback

litmus paper provides
feedback through
change of colour

need for
assurance that
the cleaner
works

INSIGHTS TO DESIGN DECISIONS



importance of visual feedback

need for assurance that the cleaner works

litmus paper provides feedback through change of colour

users find it exciting to see the colour of the vinegar change

container is transparent

fermenting content looks appealing and promotes anticipation

INSIGHTS TO DESIGN DECISIONS



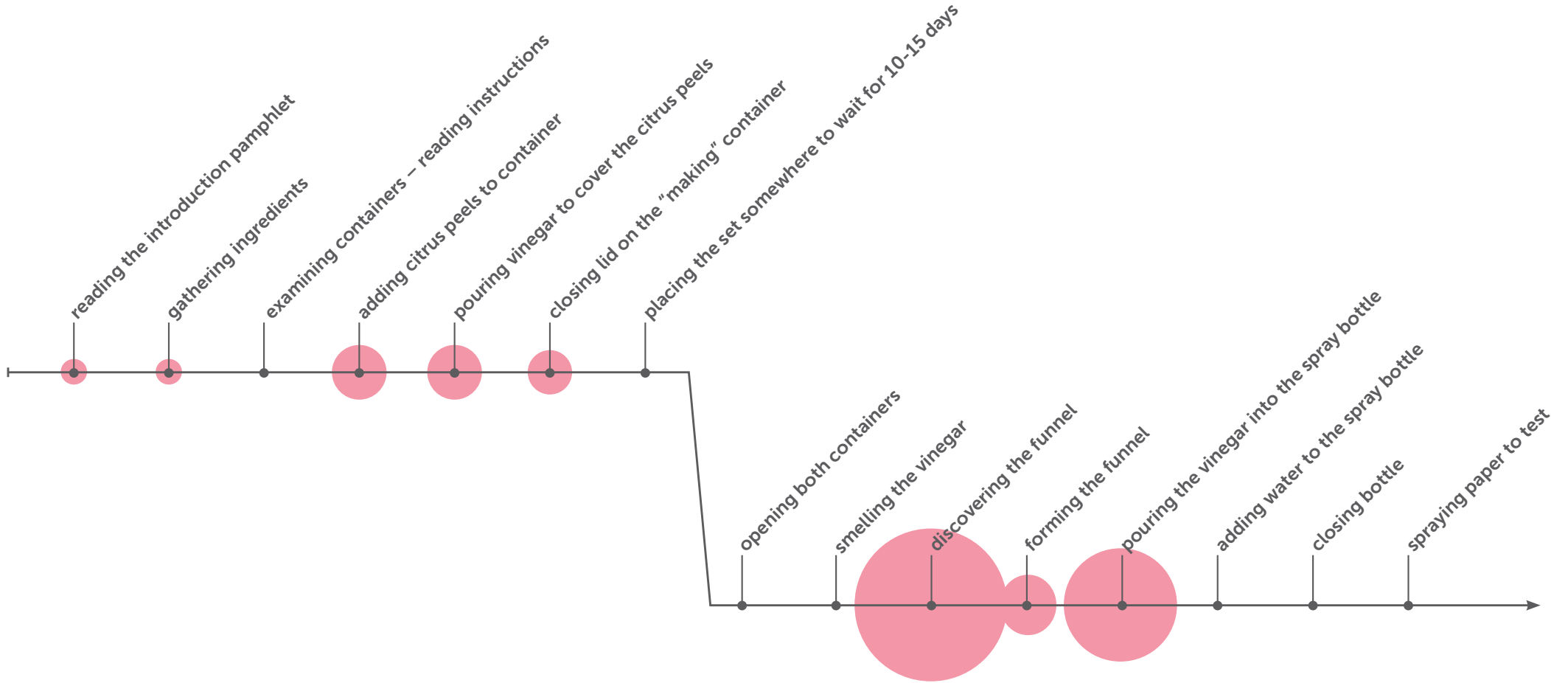
INSIGHTS TO DESIGN DECISIONS



TESTING THE PROTOTYPE IN CONTEXT



MOMENTS OF UNCERTAINTY



MOMENT OF ASSURANCE

“IT TURNED PINK!
THAT MEANS IT WORKS!”



UNCOVERED



"IT IS TOO FANCY TO PLACE IT UNDER THE SINK"



A CHANGE OF PERSPECTIVE

"I LOVED THAT IT WAS SO SIMPLE TO MAKE"

"I LEARNED SOMETHING"





THANK YOU

RESEARCH INSIGHTS

SOCIAL FACTORS



- learning to clean through observation of others
- (Green) cleaning products are seldom topics of conversation – cleaning products are often stowed away out of sight
- Cleaning potentially more fun as a social activity

WHY PEOPLE CLEAN?

- to remove dirt
- to clear head
- as procrastination
- social pressure
- out of habit



CLEANING PRODUCTS ARE ACQUIRED...

- through flatmates
- given by parents
- bought in store
- home-made



WHEN CLEANING, I WANT...

- Visual feedback of my progress
- Foam!
- Good (or neutral) smelling products
- Being guided by the products on how best to use them
- Less products; same usability



HOME-MADE CLEANING PRODUCTS ARE NOT USED BECAUSE...

- lack of knowledge of the possibility
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PEOPLE CARE MORE ABOUT THE PRODUCTS THEY USE WHEN...

- cleaning things that come in contact with skin
- things that come in contact with food
- products have effect on personal health
- products have an effect on other inhabitants (eg. infants)

