

My Habit

The smart habit reminder



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THE - TEAM

The team is composed of six members, four females and two males. We stem from a variety of undergraduate backgrounds, from Cognitive Science to Product Design.

Also, each member comes from a different nationality, these are as follows: Scottish, Polish, Italian, Lebanese and Chinese.



ASHLEY HEARTON
MA Industrial Design
Loughborough University

ROLES
Co-ordinator
Client Communicator

Ashley has a background in Product Design from Strathclyde University, Glasgow. She has previously worked with a Glasgow based company doing UX design. Also, she was runner up in the Made in Scotland Awards for the Category 'Young Innovator of the Year' 2017.



SZYMON TRZEPLA
MA User Experience
Loughborough University

ROLES
Shaper

Szymon has a background in Cognitive Science from Jagiellonian University in Poland. He also Worked in Public relations, was customer service specialist and radio editor, volunteering related to media and event management.



SAMAH EL ZAATARI

MA User Experience
Loughborough University

ROLES

Implementer

Samah studied Graphic design, emphasis print design at The Lebanese American University in Lebanon. She then graduated and worked in a branding and digital agency in Beirut for 2 and half years doing both print and digital design work.



CARMINE DI-MARTINO

MA User Experience
Loughborough University

ROLES

Monitor Evaluator

Carmine is from Italy and moved to the UK to pursue his degree. He graduated in BSc Computer Science and Business Administration at The University of Kent. He then pursued a Masters in UX Design. Throughout his degree he entered a one-day competition, becoming UXathon 2018 winner.



CHERYL TANG

MA Industrial Design
Loughborough University

ROLES

Finisher

Cheryl comes from Hong Kong and moved to the UK. She then graduated with a BEng in Industrial Design from The University of Liverpool. After this, she secured an Internship at a product design firm in Hong Kong before moving back to the UK to pursue her masters.



YUAN (OLIVIA) LI

MA Industrial Design
Loughborough University

ROLES

Investigator

Olivia has a BSc in Industrial Design at University of Northampton / Beijing University of Chemical Technology. After graduating she did an internship at an architectural design firm in Guangzhou, China. And now she is perusing her masters in Industrial design.

ABSTRACT

BRIEF

The project brief was given by the company 'Holland & Barrett', a health and wellness retailer. The brief was 'blue sky' and aimed at using voice controlled AI technology in the consumers at-home environment.

It was outlined as the following: *'How can Holland & Barrett take advantage of raising popularity of voice interfaces?*

Can we utilise to help customers live a healthier and, therefore happier life?'

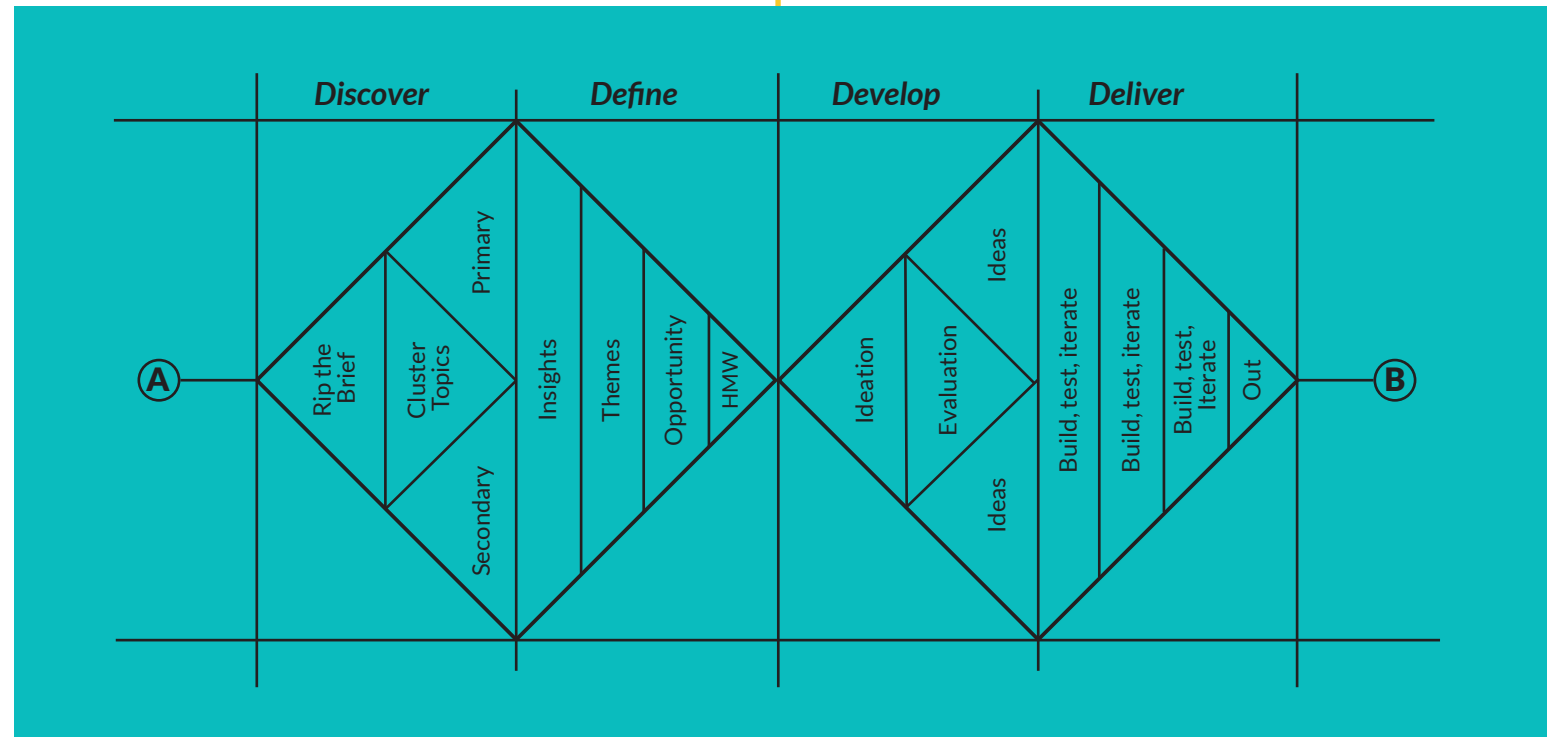
Company Priorities

- Help customers stick to health plan
- Add new dimension to customer experience
- Assistance in discovering H&B
- Improve users health & well-being
- Project image of well-being authority

RESEARCH QUESTION

How can we utilise AI technology in an at-home environment to improve consumers well-being?

DESIGN THINKING - THE DOUBLE DIAMOND



The Design Council's Double diamond' was used as the project management methodology. Each week progress was reviewed against the tasks to check if we were on target for meeting the deadlines. Divided into four distinct phases – Discover, Define, Develop and Deliver – the Double Diamond is a simple visual map of the design process.

RESULTS, OPPORTUNITIES AND CONCLUSIONS

Our design thinking takes the idea of using the behavioural change model.

In order to help consumers stick to their health plans, we need to understand the psychological aspect of consumer patterns as to design for x (in this case, x stands for 'habit-forming'). We drew on Nir Eyal's chapter in the book 'Hooked' (EYAL, N. AND HOOVER.R) to discover how to create habit-forming products. The B=MAT equation is a visual representation of the cognitive ingredients required to create a habit:

**Behaviour =
Motivation + Ability + Trigger**

RESULTS

Insights were generated from the research methods while using affinity diagram as a tool for analysis. These concepts were iterated using evaluative methods and the top concept was developed into the final. The concept 'My Habit' (system-based AI concept) which resulted from the process possessed a strong human-centred aspect to it, resulting in positive reaction to user testing. Holland & Barrett was satisfied with the end concept, and liked how habit formation integrated well with Amazon Alexa. Three levels of the concept established present and future capabilities for how the concept can develop.

OPPORTUNITIES

Using the 'My Habit' system wearable technology such as smart watches and fit-bit would enhance the capabilities and integration of the system to other products. This systemic modularity would make the 'My Habit' compatible with multiple devices, always being by the user side for more accurate results / successful habit formation. Users take medication / vitamins along with coffee as it directly relates to consumption.

CONCLUSIONS

To conclude, the project was a challenge as it was designing a capability within an system, despite this the challenge has been successfully overcome to create 'My Habit' which aims to increase users wellbeing by helping them retain a daily routine, especially with health care. The Double-diamond methodology aided the project by structuring the work-flow and moving the project forward to keep to schedule. The client was happy with the outcome as we had met the brief and explored further capabilities with AI.

3

DISCOVER



3.1

OUR BRIEF

Our research focus
Technology used

3.2

AT A GLANCE

About Holland & Barret

3.3

SAMPLING

UTE method

3.4

HABIT FORMATION


B=MAT

3.5


SECONDARY RESEARCH

3.1


OUR BRIEF



The brief was 'blue sky' and aimed at using voice controlled AI technology in the consumers at-home environment...



We plan to focus around the term 'stay young', as a healthy person is perceived as a young person from social stigma, as people who take medication tend to have behavioural tendencies to feel old psychologically as it is seen as an elderly activity...



Using a digital personal assistant to enhance this experience, using B=MAT to focus on habit formation.

AT A GLANCE H&B

There are a total of 1,368 Holland & Barrett stores around the world, with a presence in 16 country markets

“Health-box”, is a personalised subscription well-being pack that provides supplements and health recommendations

Catering for the needs of food allergy and intolerance sufferers covering all the main Free From categories defined in legislation



One of the world's leading Health & Wellness Retailer supplying its customers with a wide range of vitamins, minerals and health supplements

A strong online presence, providing an easier and more seamless shopping experience for its customers

The Natural Beauty introduced a huge range of make-up, cosmetics and haircare completely free from parabens, SLS and Microbeads

SAMPLING

METHOD

What is it?

Sampling is a participant selection method that aims to help designers access all their strata for data collection.

Which method did we use?

A mix between...

- Convenience
- Stratified

Sampling was used to generate the participant for the project activities. Convenience sampling was used as we only had access to participants around the university campus - due to being students. We also used stratified sampling as our UTE was specified to an age range and lifestyle - therefore we divided the convenience sampling users into groups based on characteristics and picked participants at random to make up the strata. This ensured all requirements of the UTE were covered in the research phase.

SAMPLING SELECTION



Age 24 to 35



Men and women



Changing lifestyle



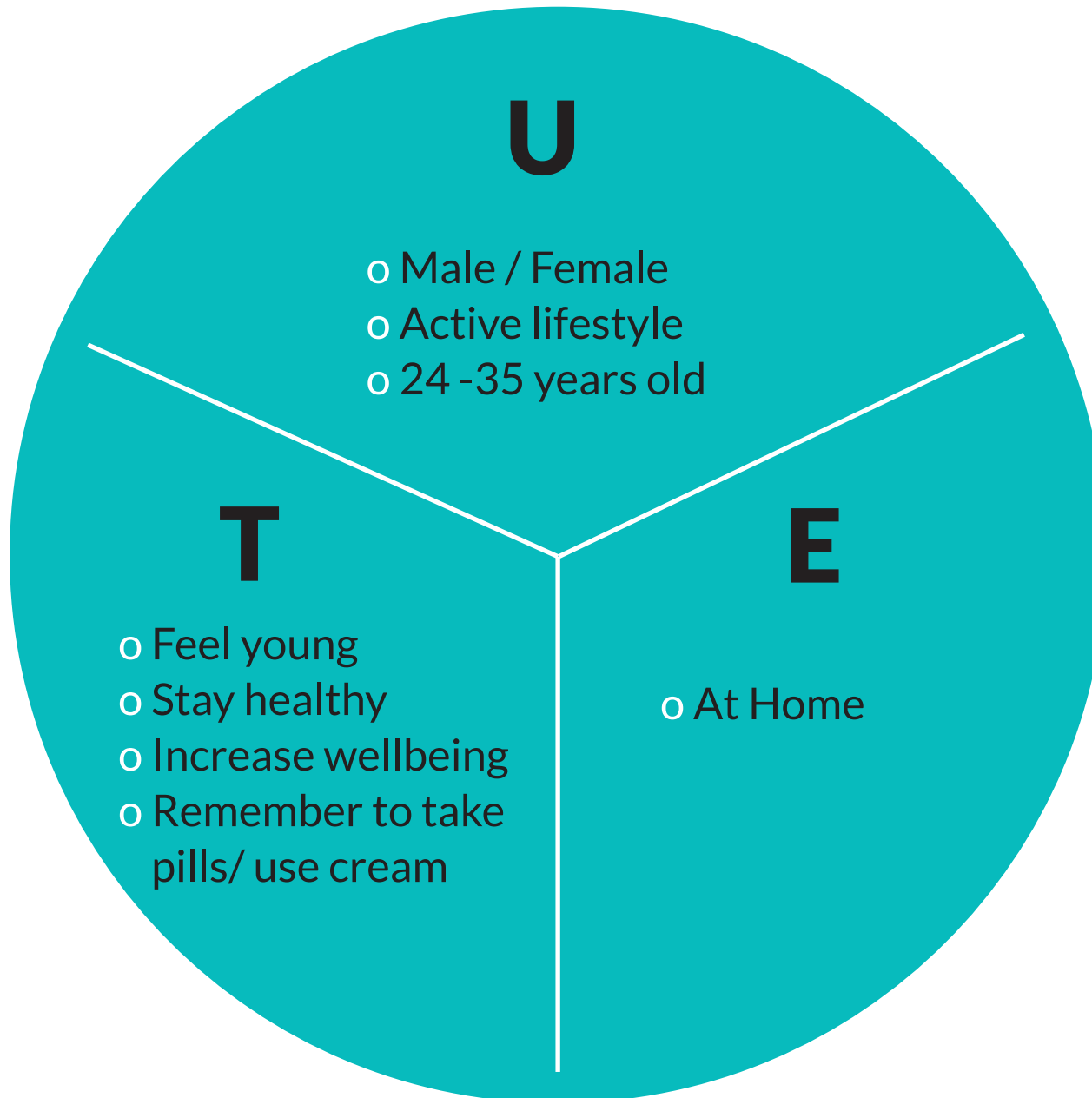
Digitally aware



Health oriented



Busy lifestyle



UTE METHOD

UTE — — —

WHY IS THIS BEING USED?

UTE is a way to define the user, the tasks the user wants to achieve and the environment in which these should be achieved. For this project, we looked at the personas Holland & Barrett had given us, plus the target market they wanted us to pursue.

User
Task
Environment

3.4

HABIT - FORMATION

Why habit formation?

Habit formation is incremental in establishing a re-occurrence in an action in a user's daily life.

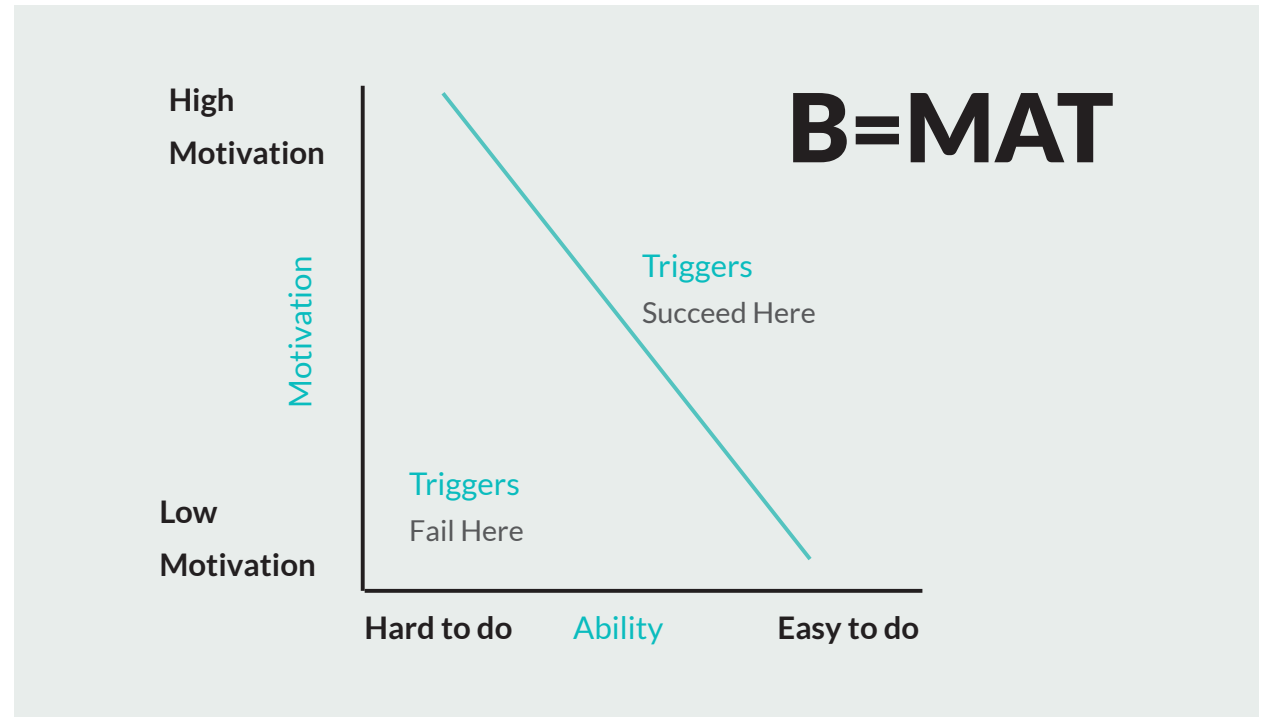
The client has given us a list of key priorities, one of which leads to the 'habit formation' being the main direction for this project:

'Increase likelihood that customers stick to Holland & Barrett products (by finding new ways to help customers form new desirable habits)'

From this statement, the project focused on why users form habits, with primary research orientated towards the psychological cause of establishing habits in users routines.

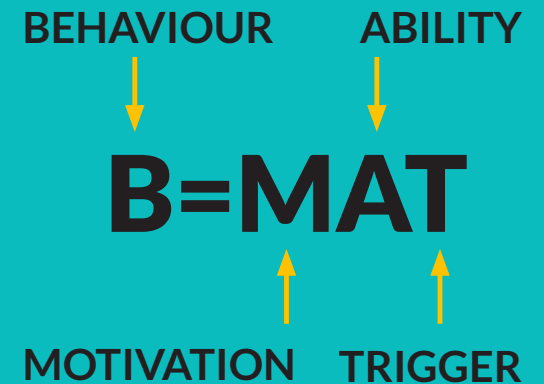
Habit forming time-line

When forming a habit, the action must be repeated three times to create a instinctual re-occurrence of the action. Therefore, this was investigated through primary research to find if the habits formation of the three-day cycle fits generation z's behavioural and psychological attitudes.



What is B=MAT?

B=MAT is an equation which is used to describe Fogg's Behaviour Model in relation to forming habits. It shows 'three key elements must converge at the same moment for a behaviour to occur: Motivation, Ability, Trigger' [Hooked, Nir Eyal, 2014].





SECONDARY-RESEARCH

BACKGROUND H&B

Holland & Barrett International (H&B) is a health and wellness retailer providing minerals, vitamin products and health supplements to its customers worldwide. H&B is a leading company with 145 years of experience in the industry, with well-established position and is one of the largest in Europe. The company stores are present in every major city and town in the United Kingdom, as well as in countries such as Malta, UAE, China and India.



COMPETITORS

The main competitors are selling products considerably cheaper and providing free services. Moreover, they are more convenient for the user being at-hand rather than in a high-street.

Health & Beauty: Boots, Superdrug...

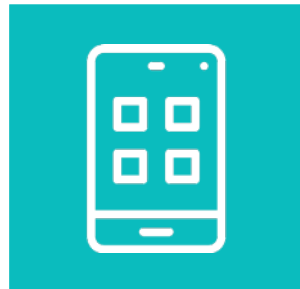
Supermarkets: Tesco, Sainsburys...

Internet Retailers: Vitamin Buddy, Amazon



HEALTH MARKET RESEARCH

People are concerned about both their physical and mental health, with meditation and yoga classes/apps becoming a popular subscribe service. People are also spending money on skin care with face-masks, oils, exfoliation. Trending aesthetic procedures include teeth-whitening (both at dentist and homekits), eyebrow shaping, lip-fillers and tanning creams / sunbeds. Vitamins has also become a vital part of many individual's beauty routines for both health and appearance.



H&B DIGITAL TECH

H&B also has a strong online presence, with seamless customer experience between online and store shopping, as well as a retail mobile app.

TECHNOLOGIES

The turn of the century, in particular, has witnessed the rebirth of AI (Clark, 2015). Fuelled by the exponential increase in computing power, big data, and the development of new algorithms that simulate biological neural networks, AI has now many commercial applications (Stone et al, 2016). This 'technology' has now embedded in a large number of consumer products for the first time in history.



4

DEFINE

4.1

4.2

PRIMARY RESEARCH

4.1.1 Service Safari
Journey Mapping

4.1.2 Diary Study
5W's 1H

4.1.3 Behaviour Map
Individual-centred Map
Place-centred Map

4.1.4 Contextual -
Interviews

4.1.5 Service Comparison
SWOT Analysis

4.1.6 Shadowing
AEIOU

SUMMARY OF PRIMARY RESEARCH

4.3

4.4

4.5

QUOTES FROM RESEARCH

AFFINITY DIAGRAM

Data analysis

VALUE PROPOSITION CANVAS

4.1.1

SERVICE - SAFARI

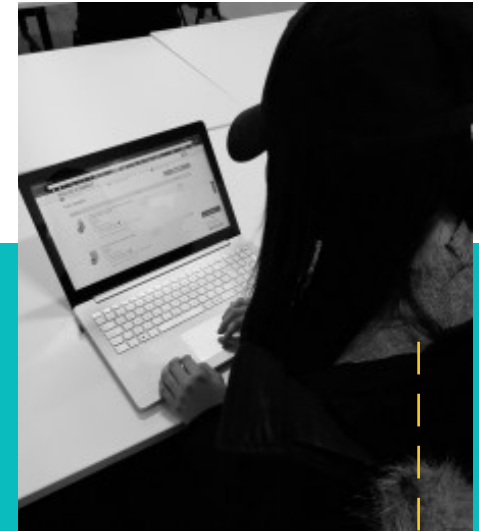
METHOD

What is it?

Service Safari is a research method which lets the designer understand in depth a service, looking at both positive and negative features. This method was undertaken by two members of the group, and a selection of participants who were samples as the target user.

Why was it used?

It was used to find out how users interact with the website, app and health-box service, providing an understanding of the tasks users undertake and their expectations versus reality of the services. It also provided insights into the psychological aspect of the user i.e. what they were thinking, what emotions were felt. It allowed the team to develop an understanding of needs customers have, problems which occurred and opportunities that our product would fulfil.



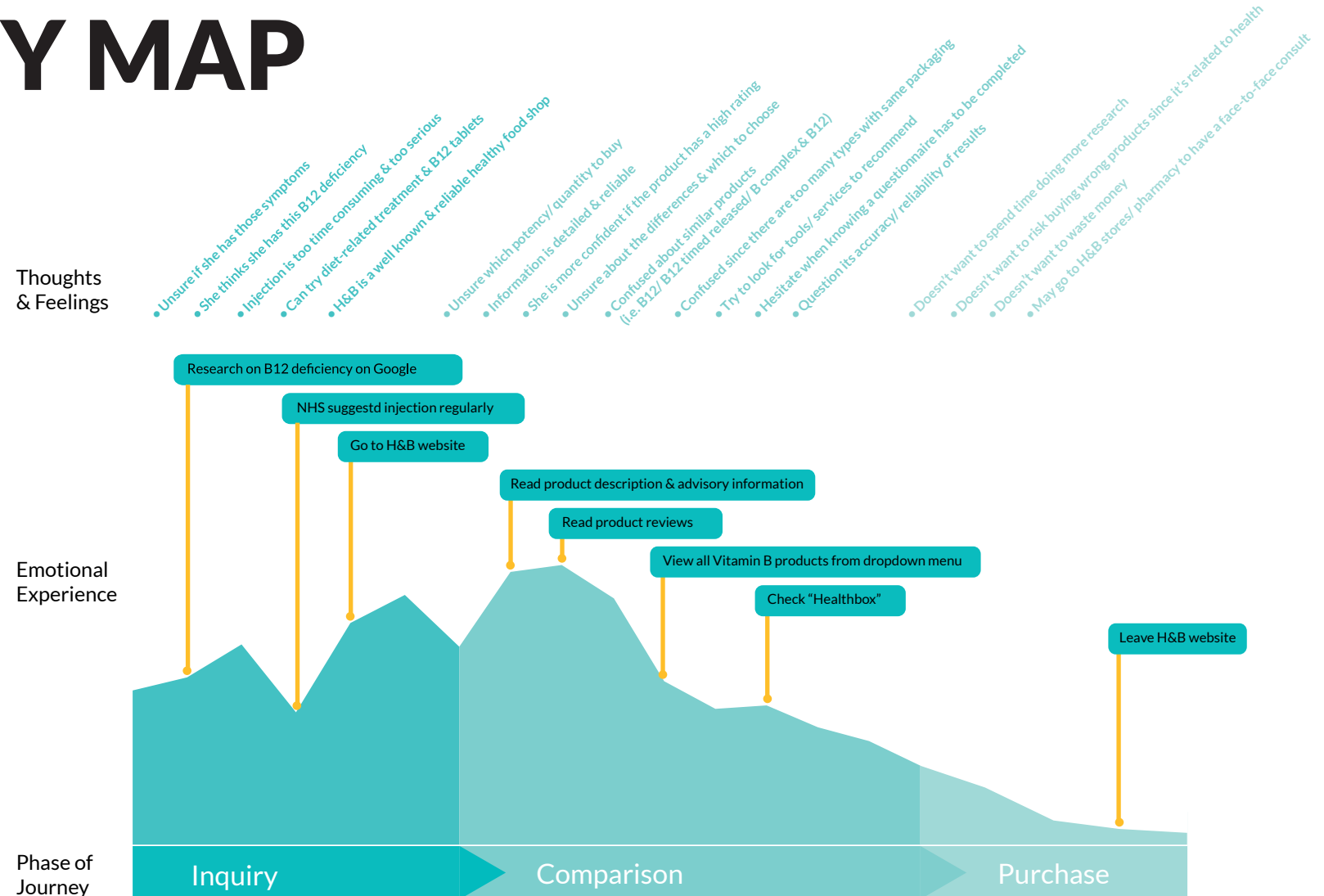
TESTING & IMPLEMENTATION

The participants were first given a task/symptoms – insomnia / vitamin deficiency / healthy snacks. Then they browsed for the related products using either H&B website or app.

Since there are two ways – in-store and online – for users to purchase H&B products, aspects would be compared between both contexts:

- Time spent
- Emotions during different phases of purchase
- Problems / difficulties encountered

H&B ONLINE STORE JOURNEY MAP



Participant explores health products on online platforms. She knows the symptoms she has but not very sure about the illness. The information and online contextual factors will affect the participant's behaviour of interacting with H&B services, also experience during the exploring and purchasing process.



RESULTS- FINDINGS

FINDINGS

General

- Participants consider H&B a well-known & reliable healthy food shop
- Promotion is one of the factors that attracts them to buy a product
- Health care products are not absolutely necessary for Gen Z
- Some of them prefer buying online
- Some of them prefer face-to-face consult when there are confusions
- Convenient and consumer-friendly checkout and delivery processes

Website interface

- Too much information on the homepage
- Font size on the navigation bar is too small

Searching for product

- Not sure if they have those symptoms
- Confused when there are many choices of the similar type of product in the same packaging
- Confusion on same type of product with different properties (e.g. effective constituent / potency)
- Product information is detailed
- Participants read reviews before purchasing to determine whether the product is reliable

RESULTS

The raw data was taken and implemented into a Journey Map. This is a persona of the users tasks and interactions which leads to achieving an end result which is then visually mapped out. Thought, feelings and emotions are drawn upon as well as phases of the users process.

4.1.2

DIARY - STUDY

METHOD

What is it?

A diary study was undertaken to understand the users psychological process when trying to form habits over a period of time. The users were given a diary which they fill in every day by self-reporting their activities at regular intervals to create a log of their activities, thoughts, and feelings.

Why was it used?

The main purpose of the diary was to obtain insights into the hidden aspects of users behaviours, things they almost subconsciously did on a daily basis. It was used as an exploratory research method, allowing us to study the sampled group in depth to the task. This gave us invaluable insights, one of which changed the direction of our further research and gave us a new perspective on the users psychological perspective of themselves, which directly relates to their well-being. The synthesised information is intended primarily for idea generation and conceptualisation.





FINDINGS AND INSIGHTS

How it works

This study was conducted over a seven-day period with two participants. The diary was composed of 7 pages, one for each day of the week with four questions inside. At the end, a four-question questionnaire revealed the key insights. Refer to Appendix A for diary used for study.

Participants



Male, 25 years old
Colitis Sufferer
Takes Medication
Mature Student



Female, 22 years old
Clinically Healthy
Takes Vitamins
Mature Student



HABITS

Habit formation was induced by the following:



PSYCHOLOGICAL

The psychological impact was an underestimated insight which has had a profound affect on the project direction. Participant A who takes medication stated “...it makes me **feel older** than I am, having to take a handful of medication.”

Since this is perceived as an elderly activity for the aging generation.

Therefore, taking vitamins / medication becomes a derogative task leaving the user feeling belittled and **less confident** of their position in society.

Can we alter these perceptions via behaviour change methods?

Can we change the social stigma associated with taking pills?

INSIGHTS

- Users feel older than they are by taking pills, as it is an elderly task for the older generation
- We could try changing the social stigma through behaviour change methods
- A visual reminder is the best way to remind users of tasks
- A bedroom environment is the best chance to succeed in forming habits
- The morning is the best time of day for reminders and habit forming
- Users take vitamins to ‘feel young’

“*It makes me feel older than I am, having to take a handful of tablets each day...*”

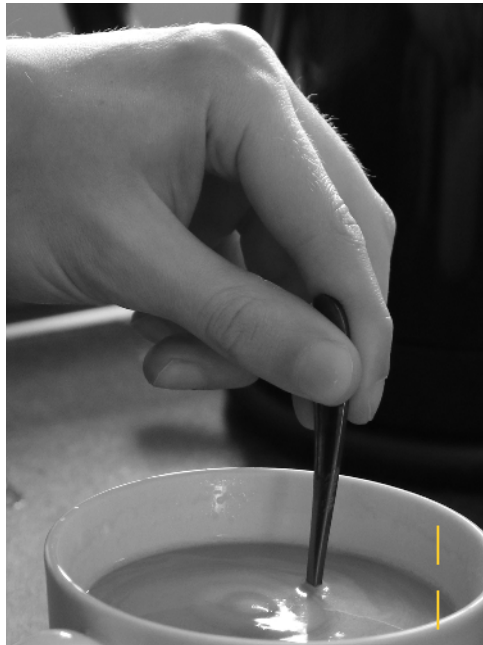
Participant A, 25 years



4.1.3

BEHAVIOUR-MAPPING

FINDING HABITS IN
USERS ROUTINES



HOW IT WORKS

One member of our team took three participants who matched our sample group and carried out the research. The team member went to each participant's home and let the participant walk them through their daily routine from early morning until bedtime.

Individual-Centred Mapping - The team member drew a time-line with regards to the task the user was undertaking, the time this was done and the psychological feelings / thoughts behind these actions.

Place-Centred Mapping - A map of the house from Participant 1 was drawn as a plan view and the spacial tracking was completed by drawing the path of the user, pinpointing areas which were used the most.

METHOD

What is it?

Behaviour mapping is a method used to help us understand the users spacial and cultural habits over a period of time. This gives us time-frames in which users complete tasks and locations in which they perform these.

Why was it used?

The main purpose of the behaviour mapping for our project was to track the thought process and feelings the user went through whilst completing tasks. This gave us an in-depth understanding of users reasoning behind completing certain tasks, how they carried these tasks out and how the outcome affects the users' psychological well-being.

Participants



Male, 26
Mature Student



Female, 24
Mature Student

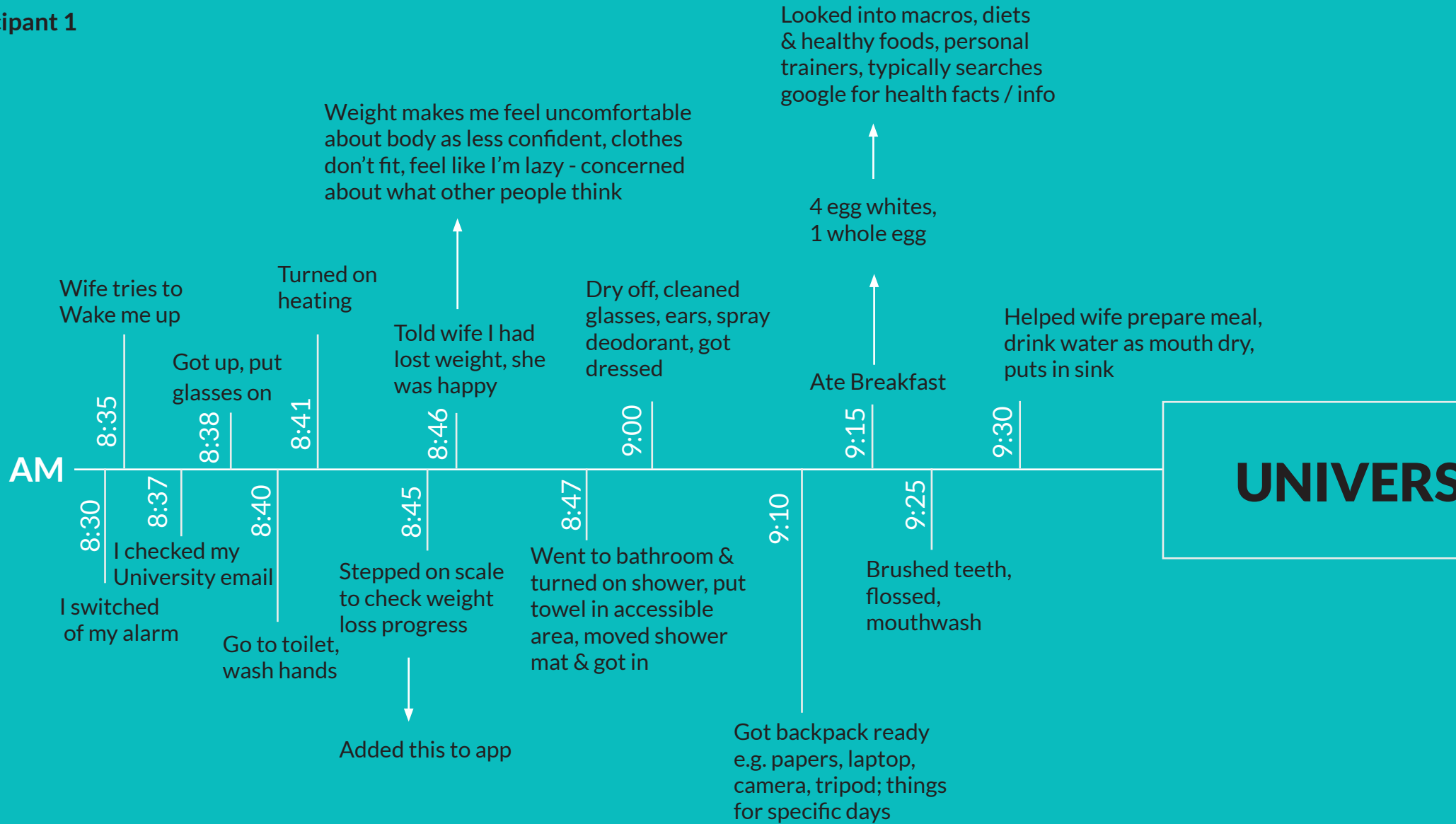


Male, 23
Mature Student



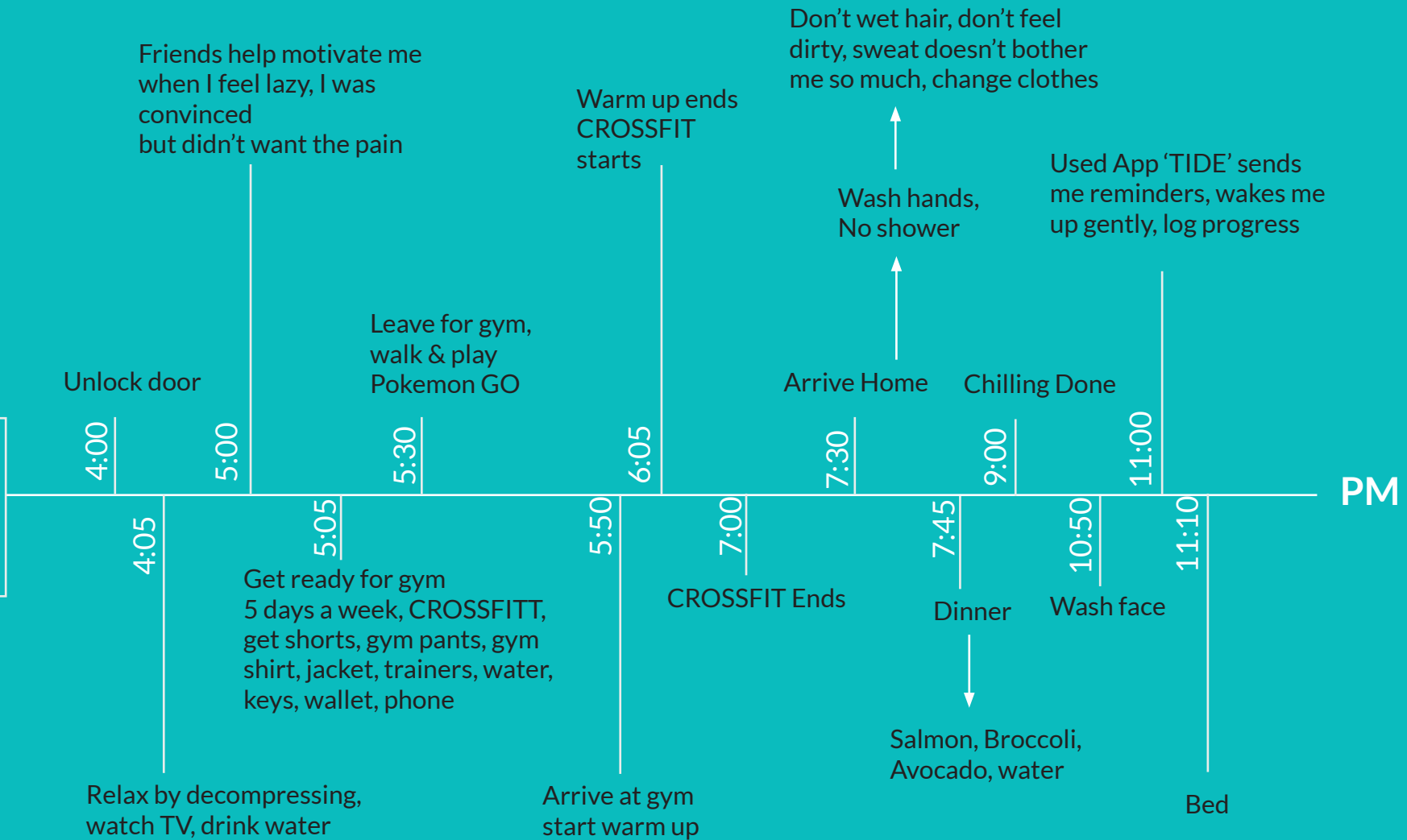
INDIVIDUAL-CENTRED MAP

Participant 1



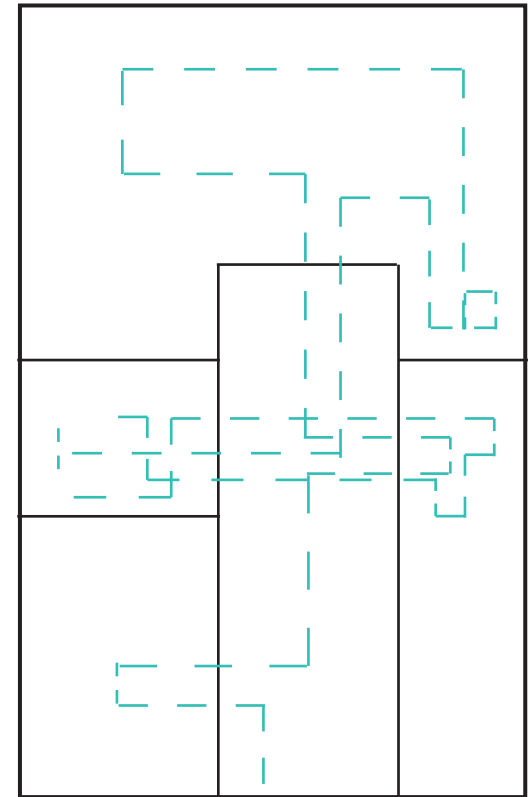


SITY





PLACE CENTRED MAPPING: SPATIAL AWARENESS



Participant A, place map



FINDINGS AND INSIGHTS

Individual-centred Mapping

Users have specific routines that followed almost religiously every morning. Body image is a key motivation for change in both male and female demographics - body image doesn't discriminate. How others perceive the user highly influences the user's self-confidence. The gym is a key influencer for both physical fitness and psychological stress levels. Apps are a vital part of a users mental perception for waking up and going to bed.

Place-centred Mapping

The bathroom is the location most used in a users morning routine. Coffee plays a vital role in preparing the users mind for the day activities (being quick acting and effective). The user will remember to carry out a task if there is a visual reminder in a key environment e.g. bedroom in an easily accessible way. Users take medication / vitamins along with coffee as it directly relates to consumption.

“I use apps like ‘Flo’ to track my period because it gives personalised advice on supplements throughout my cycle...”

Participant A, 26 years

INSIGHTS — — —

- Body image doesn't discriminate against genders.
- How other people perceive the user directly relates to their self-confidence physically.
- Apps are vital to a user's daily routine and has established a key role in the psychological state.
- Users rely on apps to keep track of well-being / health which is important to them.
- Female participant finds period trackers apps like 'Flo' useful as it provided health advice e.g. take iron supplements.
- Coffee plays a vital role in the morning routine, as consuming pills required liquid consumption.

METHOD

What is it?

A way to analyse indirect and direct competition by comparing their strengths and weaknesses against a set criterion. This will identify opportunities within areas that each are weak in.

Why was it used?

A product comparison between 'Health Box' & 'Graze-box' was undertaken to not compare the products, but gain a deeper understanding to users' subscription habits and why they are more attracted to subscribing to one service than another.

SERVICE COMPARISON: USERS SUBSCRIBING HABITS



S

- Provides vitamin supplements
- Delivers directly to the user's house on a monthly basis
- Online blog with tips and lifestyle hacks

W

- Seems more like a chore
- Poorly advertised
- Intimidates user through lack of understanding to the recommendations
- Lack of educational background for users
- Highly expensive compared to other high street brands

O

- Not forcing subscriptive services (make people want to get monthly, not forced)
- Make subscription cheaper by capping the cost
- Add this to loyalty points
- Advertise to generation z to take custom away from other online services due to well-being trend
- Create product awareness

T

- Cheaper alternatives
- Online vitamin services offering modern alternatives to trending services
- Advertisement to generation Z to take away customer base from Holland & Barrett

SWOT METHOD

SWOT — — —

Why was it used?

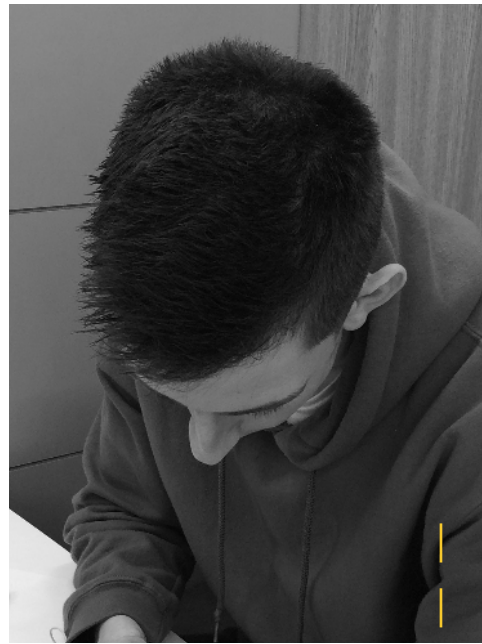
A SWOT analysis was used to analyse the collective information gained from the service comparison. Both services were compared against each other in a non-bias fashion, using post-it notes and a grid. Here, the raw data were collated to find these attributes of subscribed tendencies:

Strengths
Weaknesses
Opportunities
Threats



4.1.4 CONTEXTUAL INTERVIEWS

QUALITATIVE RESEARCH
ON USERS ROUTINES



METHOD

What is it?

A specific type of interview to accumulate qualitative raw data from the sampled group via a one-to-one interview.

Why was it used?

To gain an in-depth understanding of the user's perception of how the beauty and health industry affects their daily routines. Also how the products they buy reflect their thinking habits and whether their self-esteem is affected by these products. If their conscious of the physical changes or whether it is a psychological placebo.

FINDINGS

Do you take any supplement (vitamins, fish oils), medication, or even skin care products on a regular basis? How often?

- o Yes, I do. I take Vitamin D, Vitamin C and calcium (on daily basis every morning) And sometimes I take the multi vitamin.
- o When the vitamins I previously mentioned are out, I switch to this vitamin (I take it for 3 months).
- o I prefer to switch vitamins each 3 month so that my body/health doesn't get use to the product and stop improving.
- o I take Omega 3 (in the afternoon, but sometimes I forget to take it because I get busy in the afternoon.
- o Skin care: (morning and night) I use products that has collagen and hyaluronic acid in them in addition to face nutritious serums for wrinkles and hydration/moisturising creams.



Female, 41
House Wife



Male, 25
Full-time Engineer



Female, 23
Part-Time Sales
Assistant



GYM INTERVIEW

What is it?

The main goals were: to find out how “Generation Z” tackles the problem of forming/sticking to a habit and understand their attitudes towards the Holland & Barrett brand. We selected one of two gyms on the Loughborough campus – Power-base – as the location. We hypothesized that it would provide us with right sampling participants who were Generation Z representatives; who are all into fitness.

How was it used?

Participants were asked about what do they expect from health/nutrition products; what their habits in social media are; or everyday needs and desires related to fitness, diet and other habits. These interviews were audio recorded on a Dictaphone and ethical procedures were carried out.





INSIGHTS

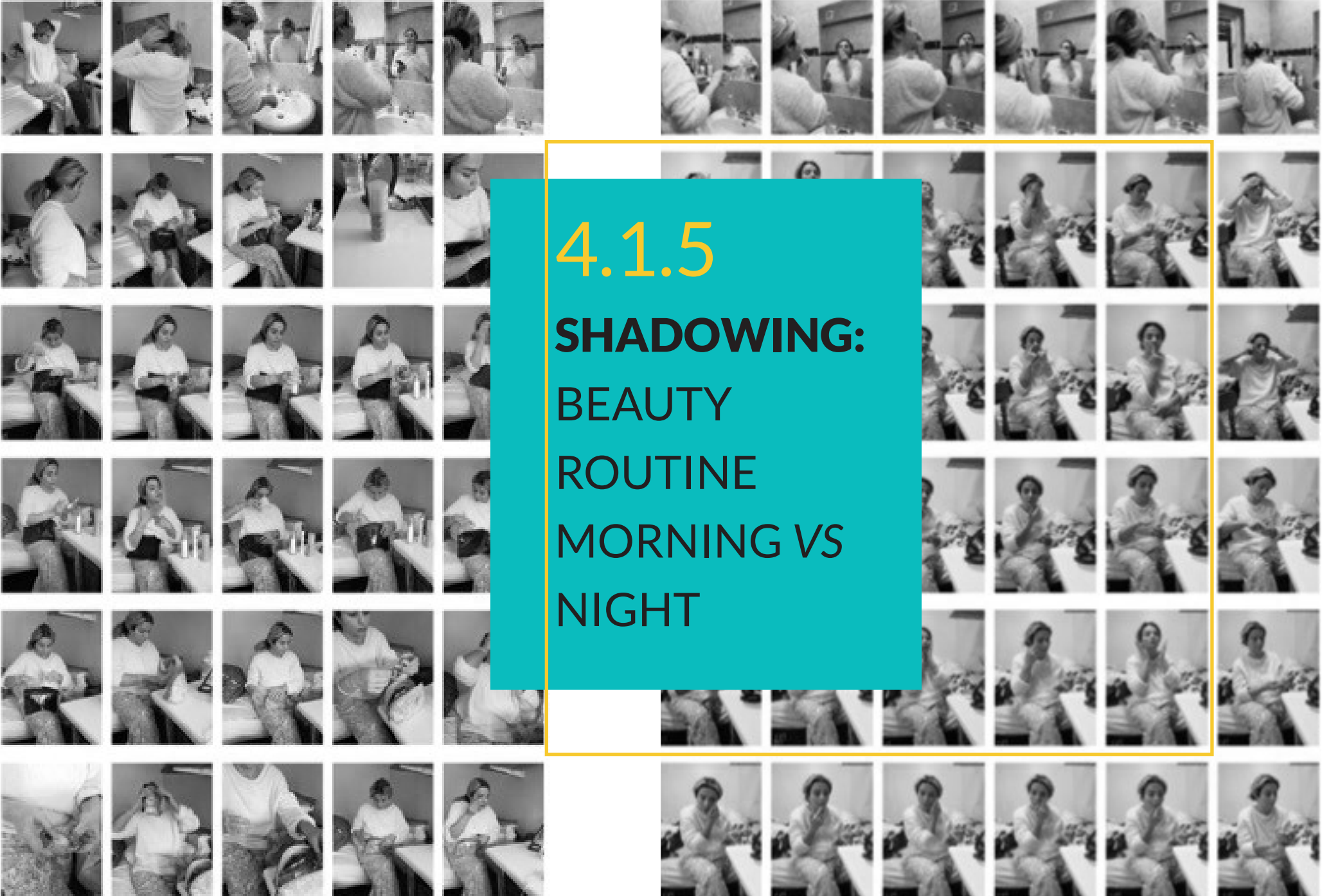


Instagram as a source of information about diet, sport and motivation
Friends are an important motivator and source of advice. Fails in habit creation come from lack of concentration. To achieve a goal, think about benefits it gives you.

“
Remind yourself about a thing that you want to transform into a habit. Time constraints make maintaining habits difficult...
”

Lack of time has been described as the biggest challenge when forming a new habit. Planning and thinking about benefits of a new habit were the most common techniques to succeed.

“
It can be difficult but apps and reminders help me start new eating habits and gym routines on-the-go...
”



4.1.5 SHADOWING: BEAUTY ROUTINE MORNING VS NIGHT



FINDINGS AND INSIGHTS

AEIOU Analysis

AEIOU is a structured analysis method to guide observations.

A

Going to the gym three times a week to strengthen muscles and release stress, use creams on face to look young, take supplements to feel healthy

E

Bedroom is main area for applying serums AND taking supplements, comfortable space, sit on bed whilst using table for application

I

Interactions are light-handed, careful, particular when placing the creams, having soft movements and being gentle

O

Mirror to apply cream, to see results and check progress, for precision, bag with creams to protect them

U

35-year-old house wife with three children, smoker, Lebanese ethnicity, highly values feeling / looking young



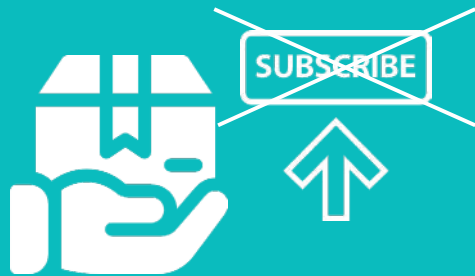
“
It makes me feel like I'm not getting old. I feel young like creams & supplements stop time/aging...
”

Participant, 35 years

4.2

SUMMARY OF - PRIMARY RESEARCH





SERVICE COMPARISON

SWOT Analysis

Subscriptive habits of users

Purchasing vitamins feels like a chore

Users don't like constraints of fixed subscription

Lack of educational background

Do not like feeling forced

Like to personalise package



CONTEXTUAL INTERVIEWS

Gain in-depth understanding of users perception of how beauty & health industry affects daily routines & reflects their thinking habits

- Users use specialised tools to achieve goals
- Users think feeling younger is looking younger
- Users use internal & external products



SHADOWING

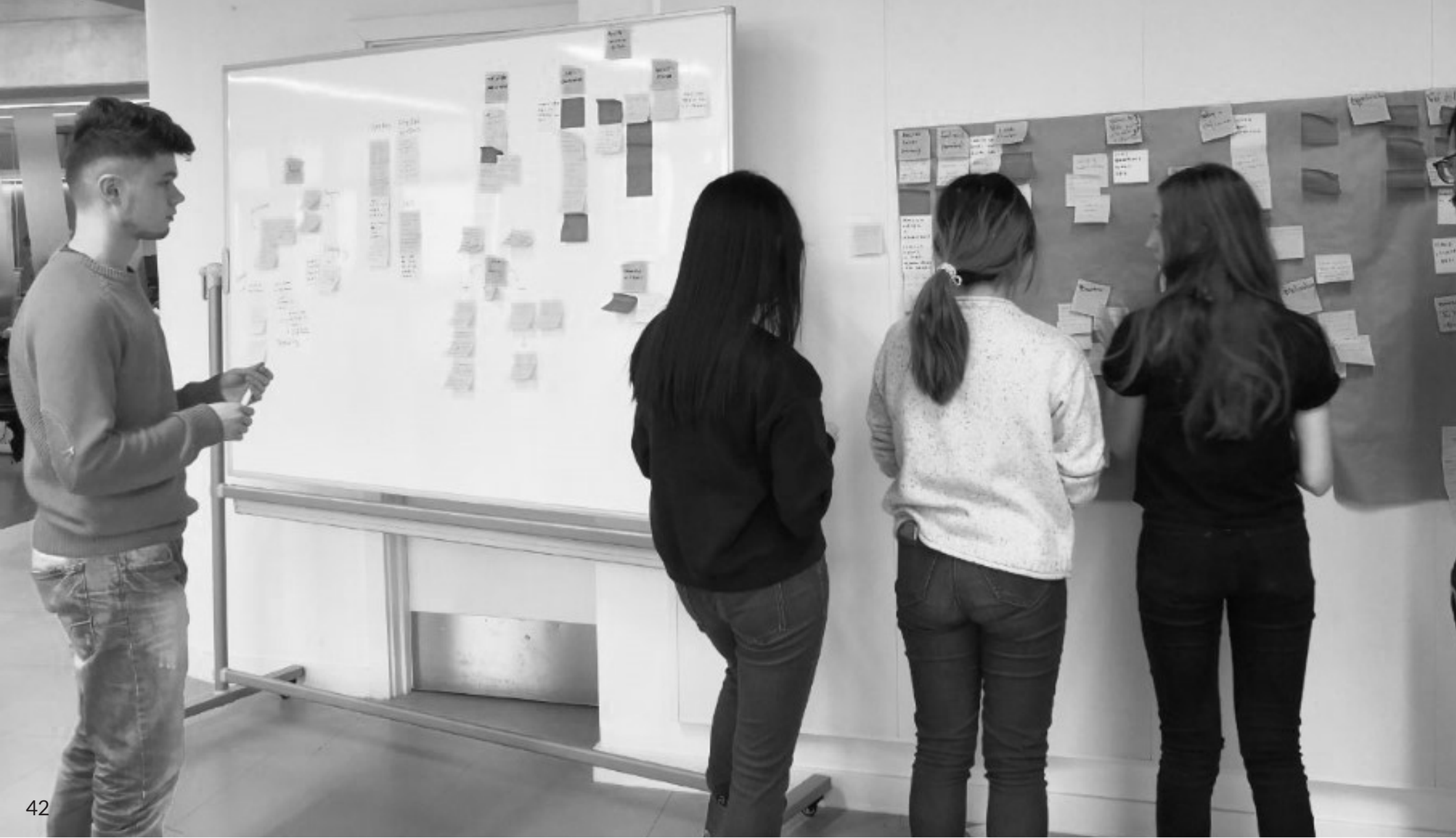
AEIOU

Users expect immediate results consumer relationship when they see difference.

“I feel like I'm getting old, I feel like creams and supplements stop time / aging...”

Participant, 35 years

4.3 QUOTES





“ ...It makes me feel like I’m not getting old.
I feel young like creams & **supplements**
stop time/aging ... ”

“ ... It makes me **feel older** than I am,
having to take a handful of tablets
each day ... ”

“ ...Weight makes me feel uncomfortable
about body as less confident, clothes
don’t fit, feel like I’m lazy - **concerned**
about what other people think.... ”

“ ... Remind yourself about a thing that
you want to transform into a habit.
Time constraints make maintaining
habits difficult ... ”

“ ... I use apps like ‘Flo’ to track my
period as it gives **personalised**
advice on supplements
throughout my cycle ... ”

DATA - ANALYSIS

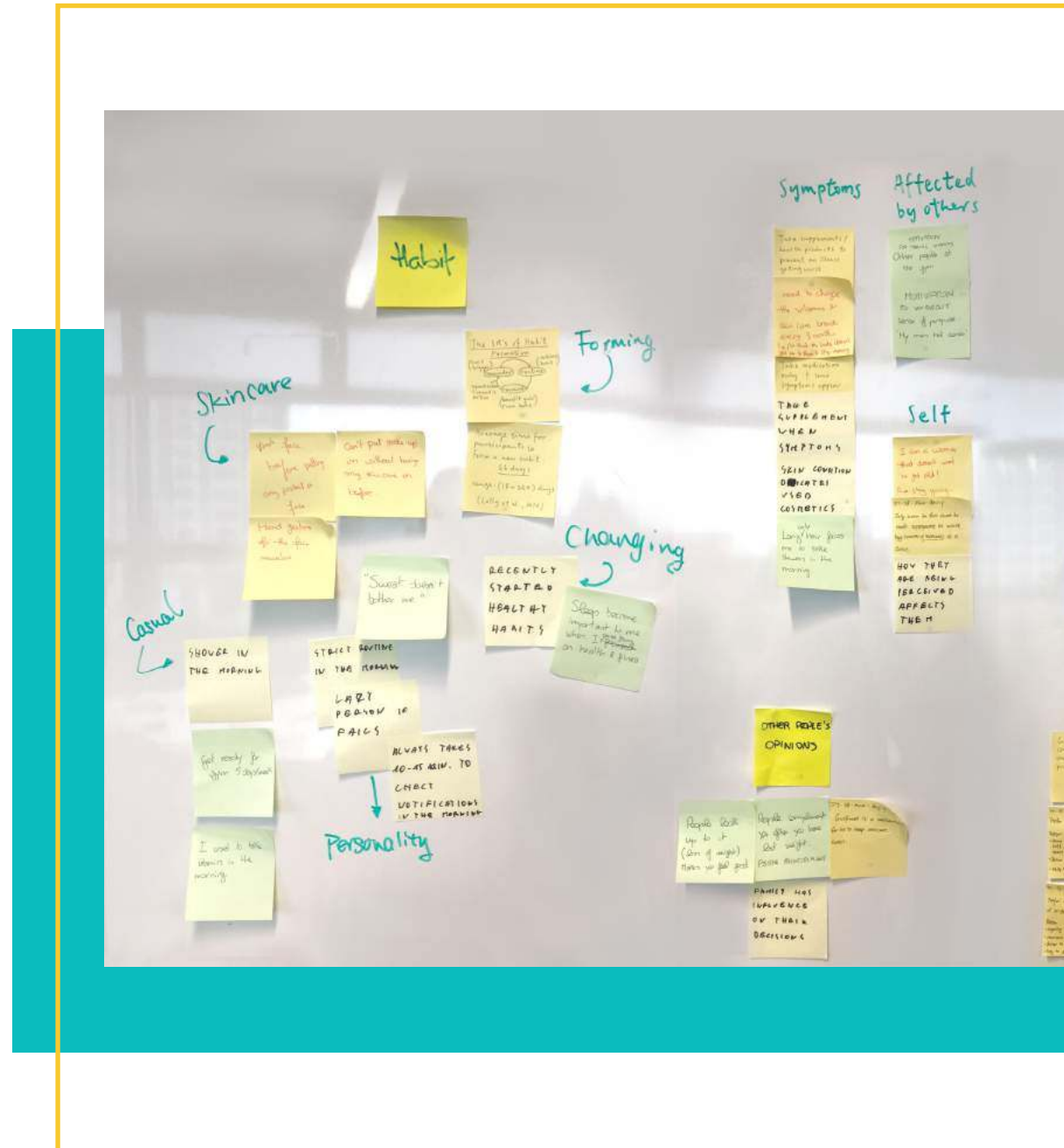
AFFINITY DIAGRAM

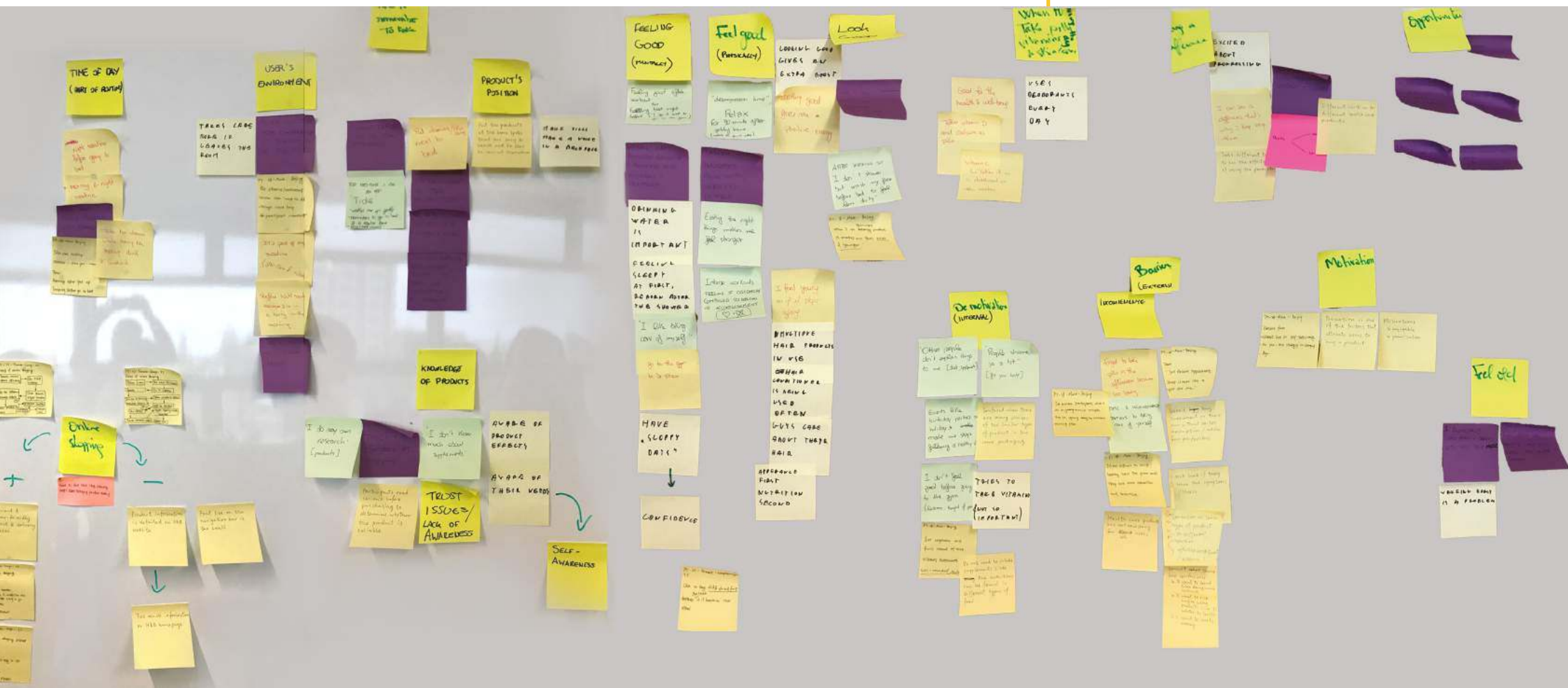
Affinity Diagramming is a technique which is an aggregation of all research - insights from research - & clustering these into groups.

The group wrote all insights from the research method findings onto post-it notes (these included quotes, observations, survey answers...). Each insight was then clustered under groups with similar themes. Duplicated insights were then discarded and within the groups, sub-groups were formed to form the diagram.

RESULTS

The result justified well-grounded theories and gave the team a comprehensive overview of the research stage of the process. It revealed a story of our target users, their tasks, routines and opportunities for design within those. It established the following

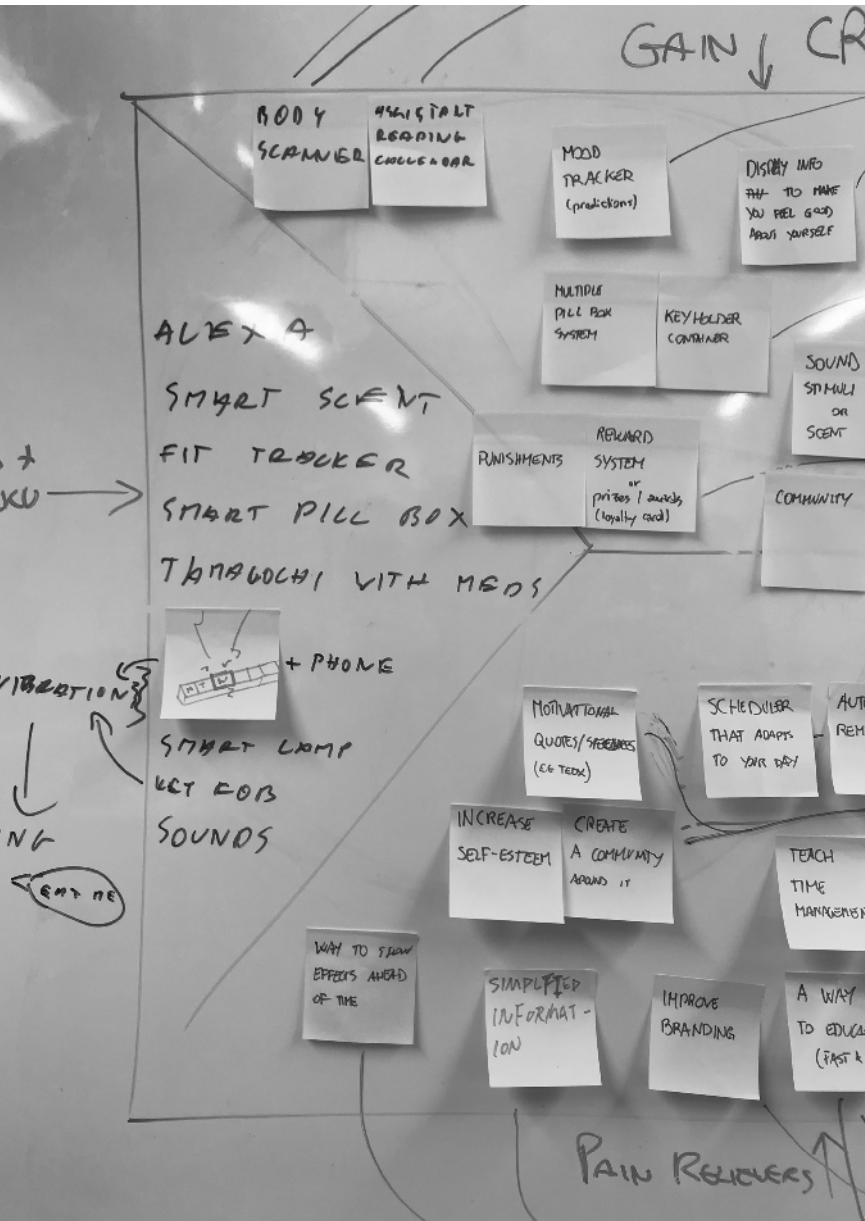




- 45

PROPOSITION CANVAS

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EARLY CONCEPTS GENERATION

1

Smart Scent –
Psychological
memory booster

2

Smart Pill Box –
Behaviour change, using
'persuasive tech' to force
user to take medication, has
days of week with separate
compartments and light
underneath.

3

Smart Lamp –
Light glows normal light,
when pills haven't been
taken it glows green

4

Tamagotchi Pill Box –
Smart keyring with vitamins
inside, connects to Alexa
to track and alert users
when they have been taken,
vibrates to remind user

5

Alexa / H&B App –
Pill box app which combines
with healthbox and smart
home devices, verbal
communication with Alexa
let her know if vitamins etc
have been taken

5

DEVELOP



5.1

PERSONA

5.2

INITIAL CONCEPTS

Weight / Rate Matrix

5.3

5 KEY CONCEPTS

5.4

KANO

5.5

FINAL CONCEPT
DEVELOPMENT

5.1

PERSONA 1

ROUTINE

8:17

Wakes up Overslept.
Rushes to bathroom.

8:30

Breakfast Has a quick gluten free meal to be easy on her stomach.

9:00-14:00

Classes

15:00

Lunch Reminds herself she forgot to take pills in the morning.
Feels unwell.
Asks flatmate to bring her meds.

16:00

Break

17:30

Gym Feels better already, ready to train hard.
Feels really good.

23:30

Bed time Takes evening dose of meds.
Plays some games.

“ I can be quite sloppy sometimes, especially when I don’t have to go out. It happens that my condition gets worse and I can’t exercise - it’s killing me! ... ”

24 years old
MSc Psychology at University of York

Ambitious gym goer
Very well organized
Introvert
Takes prescribed medication for 10 years

MIA



TECH USAGE

Phone
Fitbit
Laptop

GOALS

- Has a group of friends and feels good among them.
- Focused on her gym goals.
- Tries to live a healthy lifestyle and cares about what she eats.

- Likes to look good, but too lazy to care about it daily.
- Feels like an elderly person when her life is dictated by pills.

PERSONA 2

ROUTINE

7:00

Wakes up

Skin care
Grooming
Breakfast
Clothing
Packing

7:15

Shower

8:30-17:00

Work

Projects
Lunch at work
Team meeting
Trip to client
Lots of Snacking

17:30

Break

18:30

Meet GF

Skin care
Dinner
Room clean-up
Internet

21:00

Shower

22:00

Self-study

“

*I do care how people perceive me.
[...] Family and friends give me
strength to change myself for the
better.*

”

30 years old
Senior Engineer in a start-up
company

Careless attitude
Enjoys time with friends
Ambitious
Casual gym goer

MARCUS



TECH USAGE

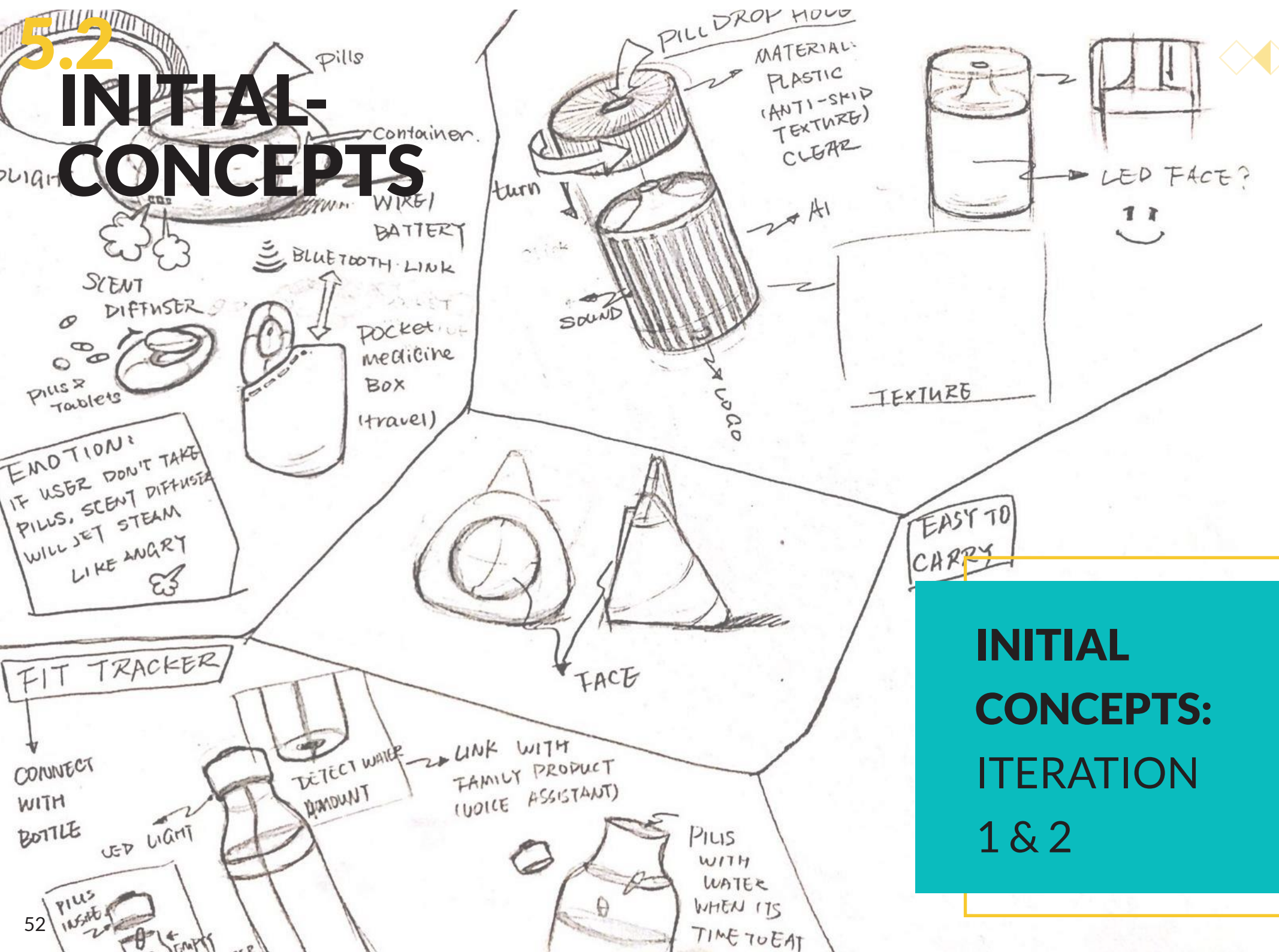
Phone
Smart watch
Laptop
Xbox

GOALS

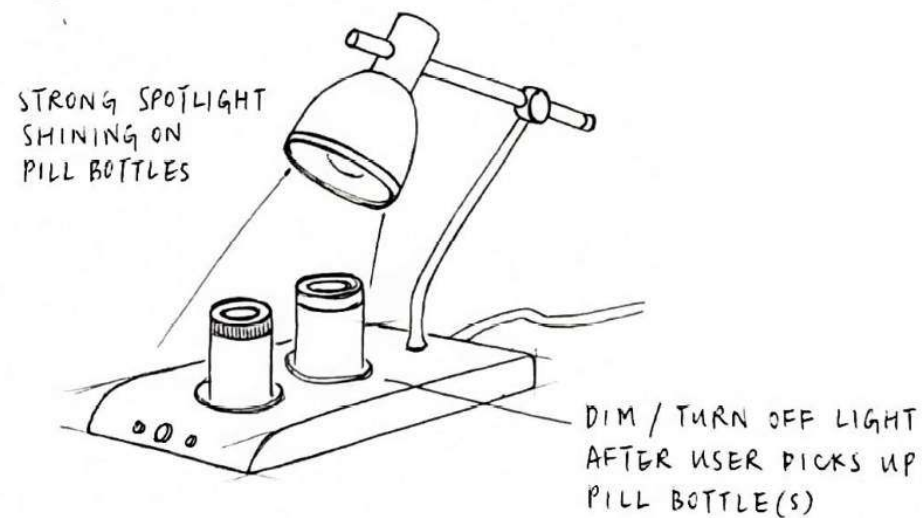
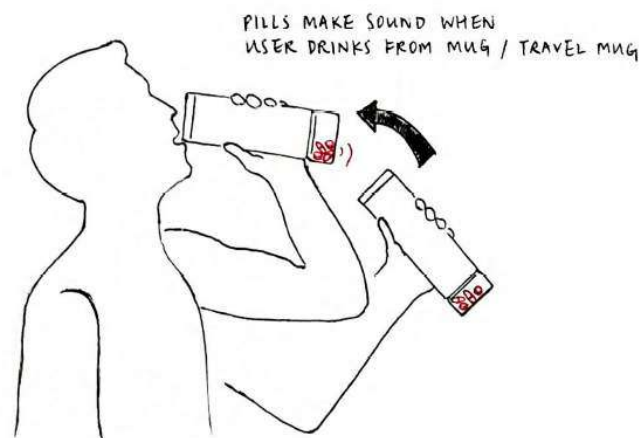
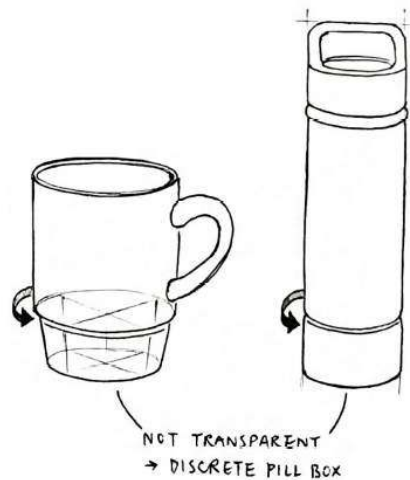
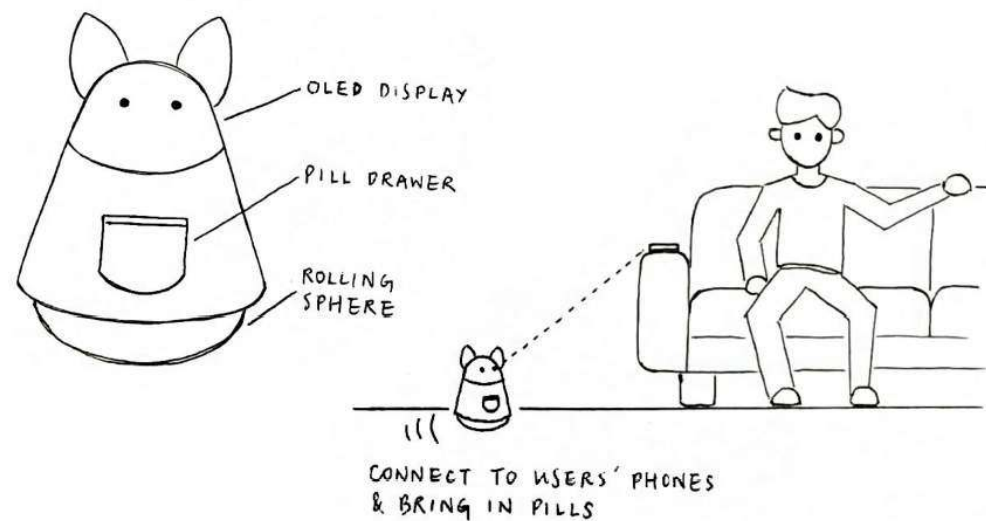
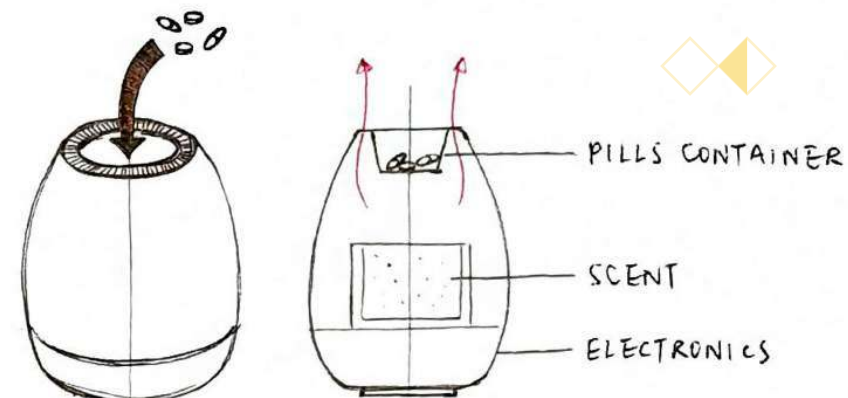
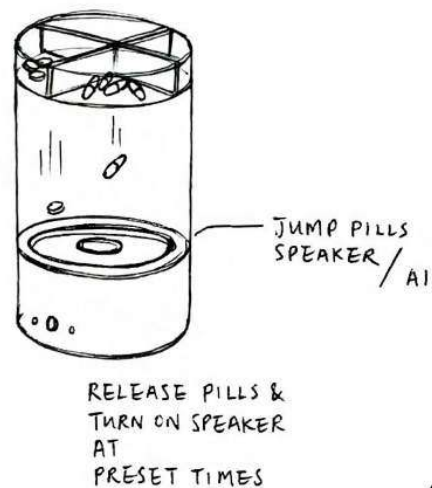
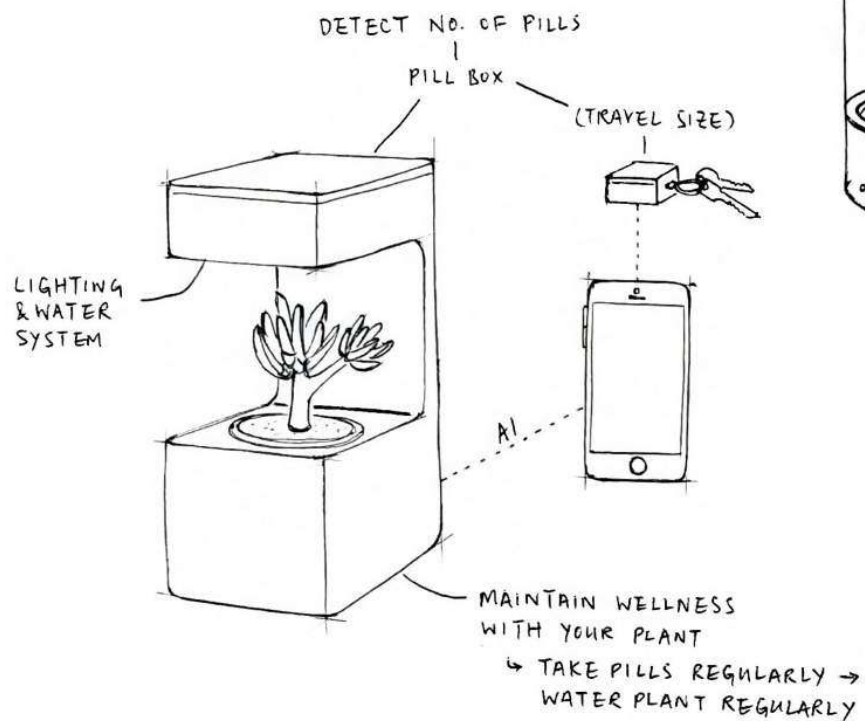
- Looking good gives him confidence, so he takes his time to perfect a hairstyle and grooming.
- Focused on a future career and being successful.
- Focused on “here and now”, so health is not so important.
- Does not have time to read about things out of his major.

5.2

INITIAL-CONCEPTS



INITIAL
CONCEPTS:
ITERATION
1 & 2



METHOD

What is it?

The Weighting / Rating Matrix is a concept evaluation method used to evaluate concept attributes against a set criterion. Important criteria are weighted more heavily to ensure crucial features are met.

Why was it used?

It was used to measure concepts generated in the value proposition canvas phase against each other, separating the strong / weak concepts. The top concepts would be developed, using the data generated through the evaluative process by eliminating the pain points and developing the gain points.

Weighting / Rating

The Rating is as follows:

-3, -2, -1, 0, 1, 2, 3

The weighting is as follows:

AI and Feasibility were weighted x2

CONCEPT EVALUATION: WEIGHTING / RATING MATRIX

X2 | R | CRITERIA

CONCEPT	FEAS- IBILITY	AI	DESIR- ABILITY	FUNC- TIONALITY	COST	EASE OF USE	SCORE
---------	------------------	----	-------------------	--------------------	------	----------------	-------

DIG- COMPACTNESS	3	-3	2	1	2	3	8
---------------------	---	----	---	---	---	---	---

Jumping	2	0	2	-2	2	4	
---------	---	---	---	----	---	---	--

	1	2	-3	3	3		
--	---	---	----	---	---	--	--

	1	2	-1	2	-2		
--	---	---	----	---	----	--	--

	1	1	0	-2	4		
--	---	---	---	----	---	--	--

	-2	-1	-3	-3	-7		
--	----	----	----	----	----	--	--

	1	3	-1	2	5		
--	---	---	----	---	---	--	--

	3	3	2	0	3	1	18
--	---	---	---	---	---	---	----

	2	3	2	3	3	3	21
--	---	---	---	---	---	---	----



Concept	Feasibility	AI	Desirability	Functionality	Cost	Ease of Use	Score
Concept 1	3	-3	2	1	2	3	8
Concept 2	2	-1	0	2	-2	2	4
Concept 3	-2	3	-1	2	-3	3	3
Concept 4	-1	-2	1	2	-1	2	-2
Concept 5	1	1	1	1	0	-2	4
Concept 6	1	-2	-2	-1	-3	-3	-7
Concept 7	1	-1	1	3	2	2	5
Concept 8	3	3	2	0	1	1	18
Concept 9	2	3	2	3	3	3	21

WEIGHT / RATE MATRIX

RESULTS

As important criteria are weighted more heavily to ensure crucial features were met, the AI and feasibility criteria were given x2 of a weighting.

Results found that the product based ideas did not feature AI to a high level and therefore were eliminated from the process. The two app-based concepts scored the highest.

5.3

5 KEY - CONCEPTS

1

HEALTH APP

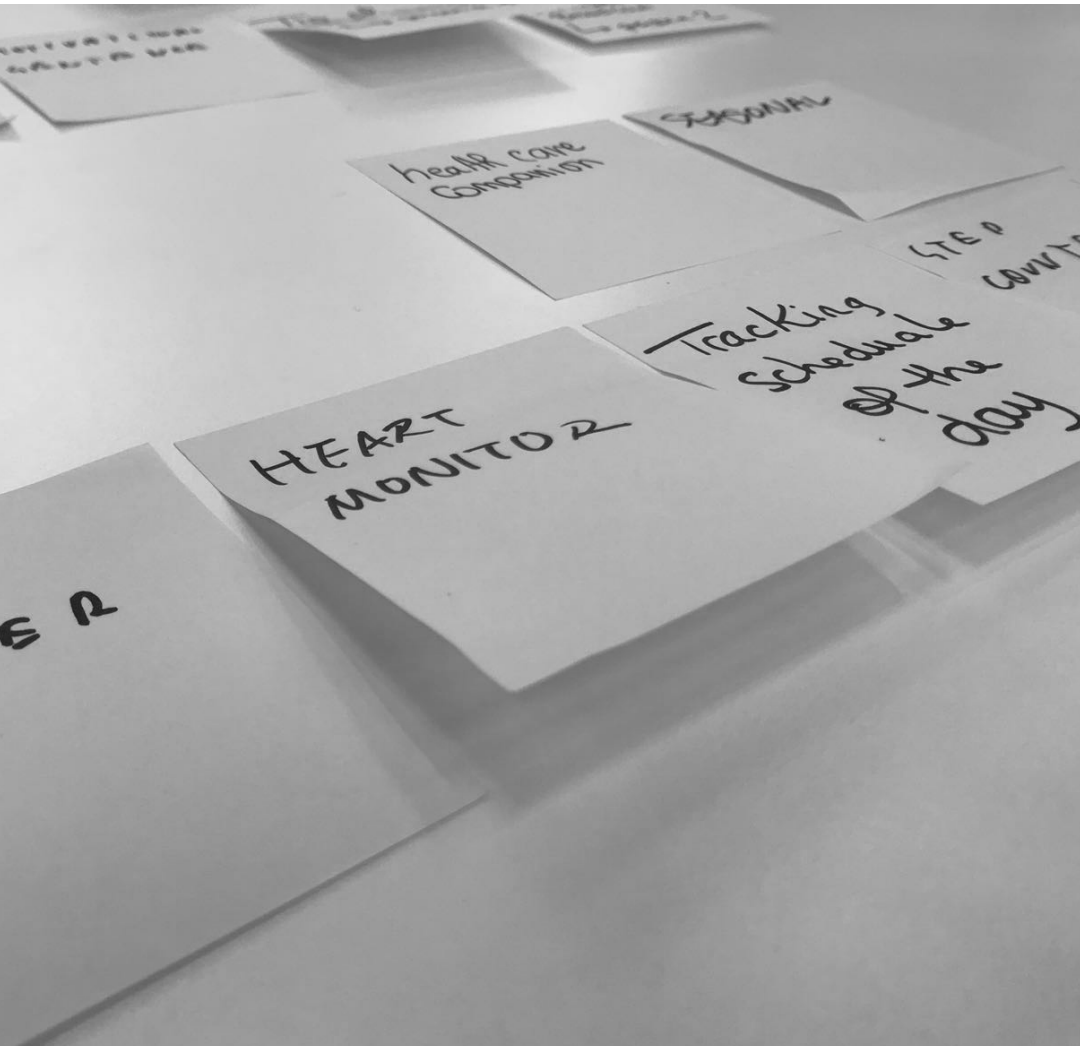
An app which takes all other types of health tracking apps and accumulates these to be measured in one place - reacts to users' lifestyle changes.

2

SMART HOME APP

An app which connects the users' lifestyle to the smart home in order for the environment to reflect and help the users form habits via lighting, voice control etc...





3

SMART LAMP

Light glows normal light, when pills haven't been taken it glows red, mood lighting changes according to associated communication e.g. habit to be repeated.

4

ALEXA / H&B APP

Pill box app which combines with healthbox and smart home devices, verbal communication with Alexa lets her know if vitamins etc have been taken.

5

ALEXA HEALTH ASSISTANT

Alexa skill that reminds users via voice control of action to take for habits to form, increase their wellbeing by helping them retain a daily routine, especially their health care benefiting from a structured lifestyle.

5.4



KANO ANALYSIS

Why is this being used?

A KANO analysis is being used to determine which of the product attributes which our concept features have the greatest impact on the usability; to keep the solution human-centred. It focuses on improving the users satisfaction with the system and outlining the gain points and opportunities to be improved upon.

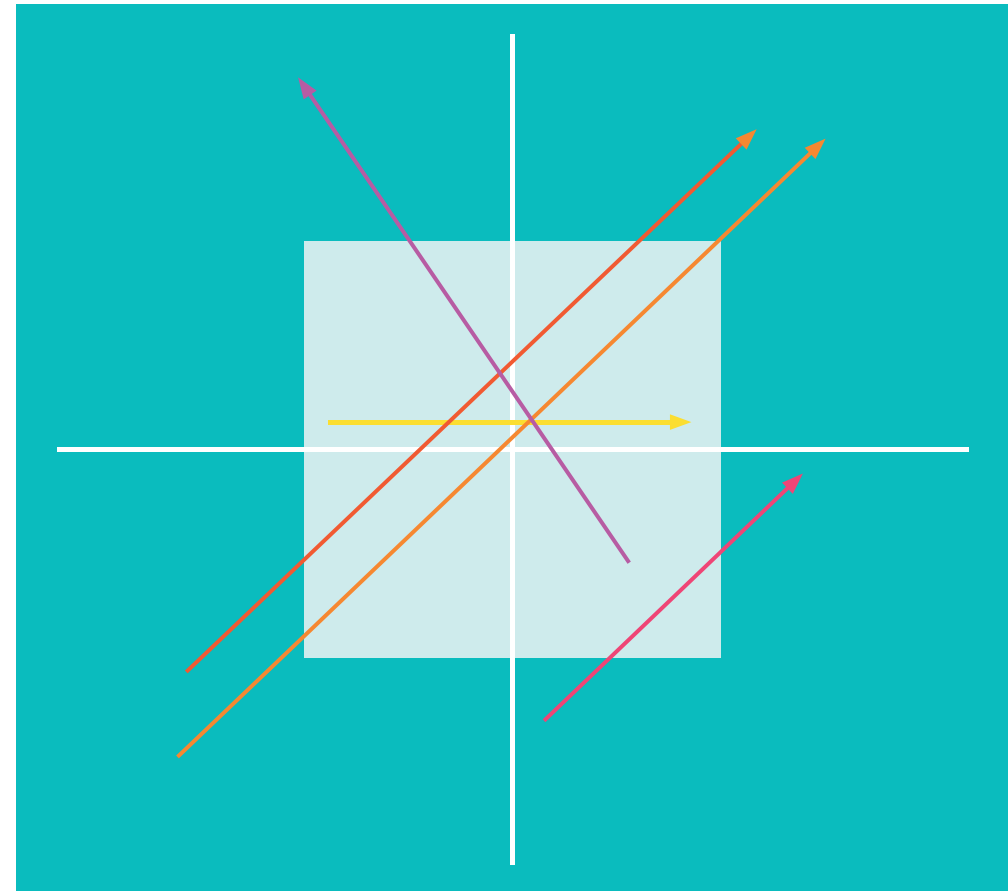
How it works?

The KANO diagram consists of four quadrants which the designer assigns user feedback to. Each attribute of the system was assigned a quadrant, after asking participants from our sampling group two questions: How they would feel if:

- a) the feature existed
- b) the feature didn't exist

Both answers are cross references with the matrix below to see which quadrant the feature lies in.

	<i>Satisfied</i>	<i>Neutral</i>	<i>Dissatisfied</i>
<i>Satisfied</i>	Questionable	Anti-feature	Anti-feature
<i>Neutral</i>	Exciter	Neutral	Anti-feature
<i>Dissatisfied</i>	Desired	Required	Questionable



AI



Habit
Formation



Reminders



Health
Hub



Health
companion

5.5

FINAL CONCEPT



We've divided our concepts into 3 levels: Simple one, more advanced but still feasible, and futuristic.

A simple reminder via Phone and Amazon Alexa or Google Home

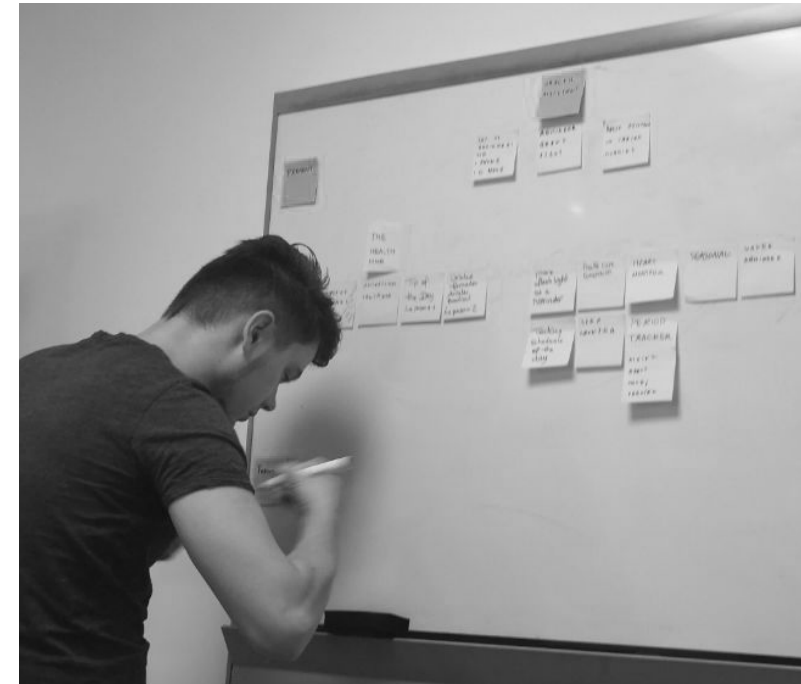
- o Simple system of reminders to take pills or maintain your beneficial habits.
- o Set up reminders on phone and smart speaker, remind you of pills and remind you of habits.

The extension concept

- o A link / sync of all the apps on our mobile (fitness app, period tracker, water reminder, step counter, heart monitor...) and checks your calendar and seasons.
- o It also takes a lot from The Health Hub available on H&B website.

The future (pushing it a little further)

- o Body scanner that can give you very specific recommendations and tell you what kind of illness you suffer from and recommendations
- o Link it with smart pill tracker that will remind you about taking pills using: phone, voice
- o It also backs-up all given suggestions with scientific data to build trust in product.



All our ideas were derived from previously created Value Proposition Canvas. This is the concept we chose to pursue due to the Weighting / Rating Matrix and Client Skype Meeting. It scored the highest in the matrix which was then presented to the client, who gave us the go-ahead to develop the concept with the three levels.

Why the change of direction?

Our design direction was shaped by the insights gained from the primary research insights and evaluation stages of the process:

- Users wanted something to help establish a habit using a smart device, but nothing as obvious as an app.
- They wanted to 'feel young' both physically and psychologically.
- Something to help them remember / form a habit on-the-go with a busy lifestyle.
- The evaluation process deemed the AI criteria important to the client, therefore these concepts came out on top.

DESIGN DIRECTION: AI SMART ASSISTANT WITH HABIT FORMING PROPERTIES

6

DELIVER



6.1

CONCEPT REALISATION

My habit - the smart
habit reminder

6.2

STORY BOARD

6.3

VIDEO PROTOTYPE

6.4

REFLECTION

Findings
Limitations
Conclusion



6.1 CONCEPT REALISATION

MY HABIT -
THE SMART HABIT
REMINDER

MY HABIT -

THE SMART HABIT REMINDER



7.00 am 11.04.18

Alexa, ask My
Habit "x"

7.10 am 12.04.18

Alexa, ask My
Habit "x"

7.08 am 14.04.18

Alexa, ask My
Habit "x"



Habit Database

Name : Habit "x"

Date : MM.DD.YY

Time : 00:00



Notification:
It's time to do your
"Habit x"

- Reschedule
- Ignore
- Accept
- Correct



It's time to do your
"Habit x"



Correction of
the database

Habit Database
Name : Habit "x"
Date : MM.DD.YY
Time : 00:00



PRESENT - 2018

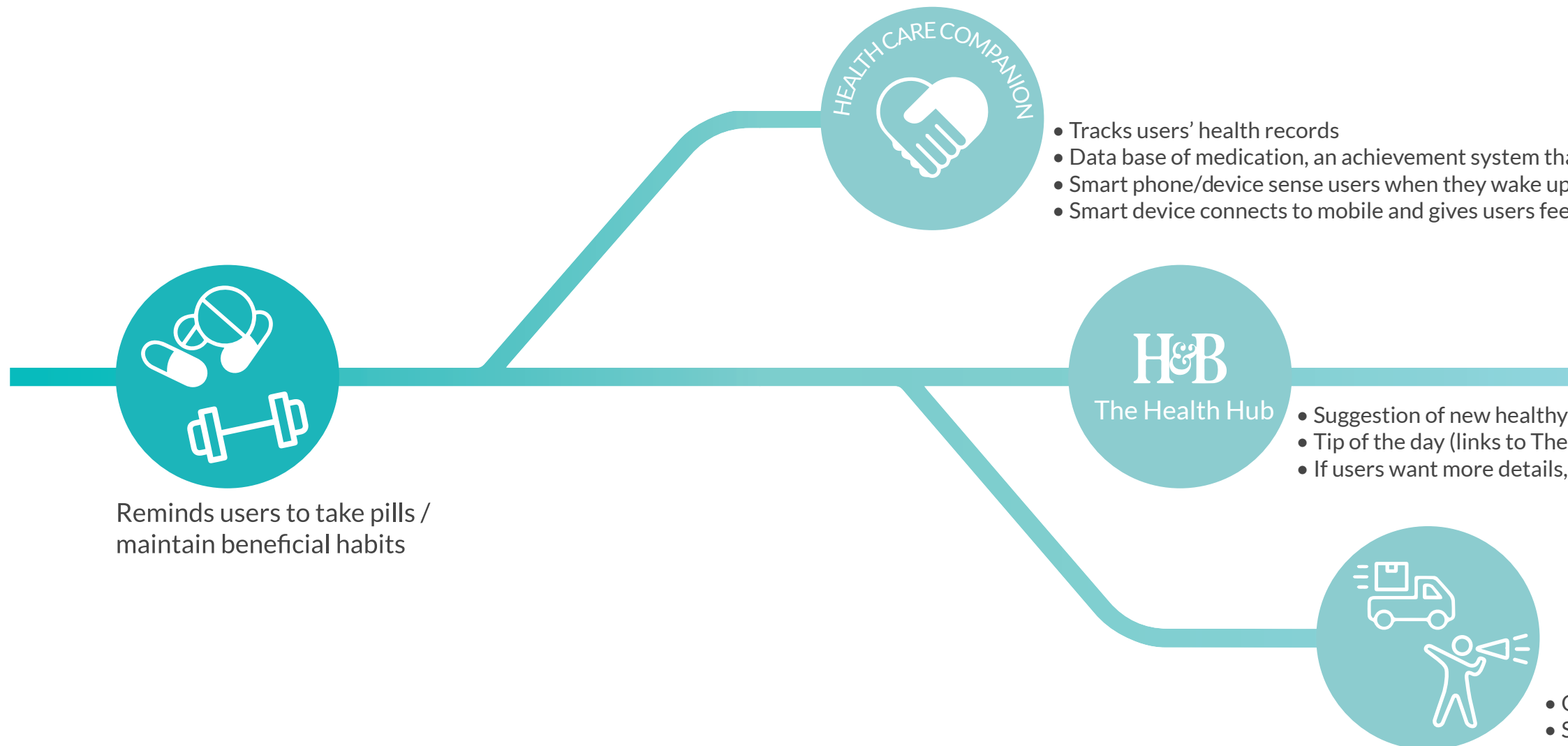
Simple and feasible solution meeting needs of H&B

- Simple system of intelligent reminders on phone / voice operated devices

EXTENSION - 2020

Feasible extensions of the system, adding more “smart” functionalities

- Link apps on mobile (fitness app, period tracker, water reminder, health checks users’ calendar, seasons and weather)





FUTURE - 2028

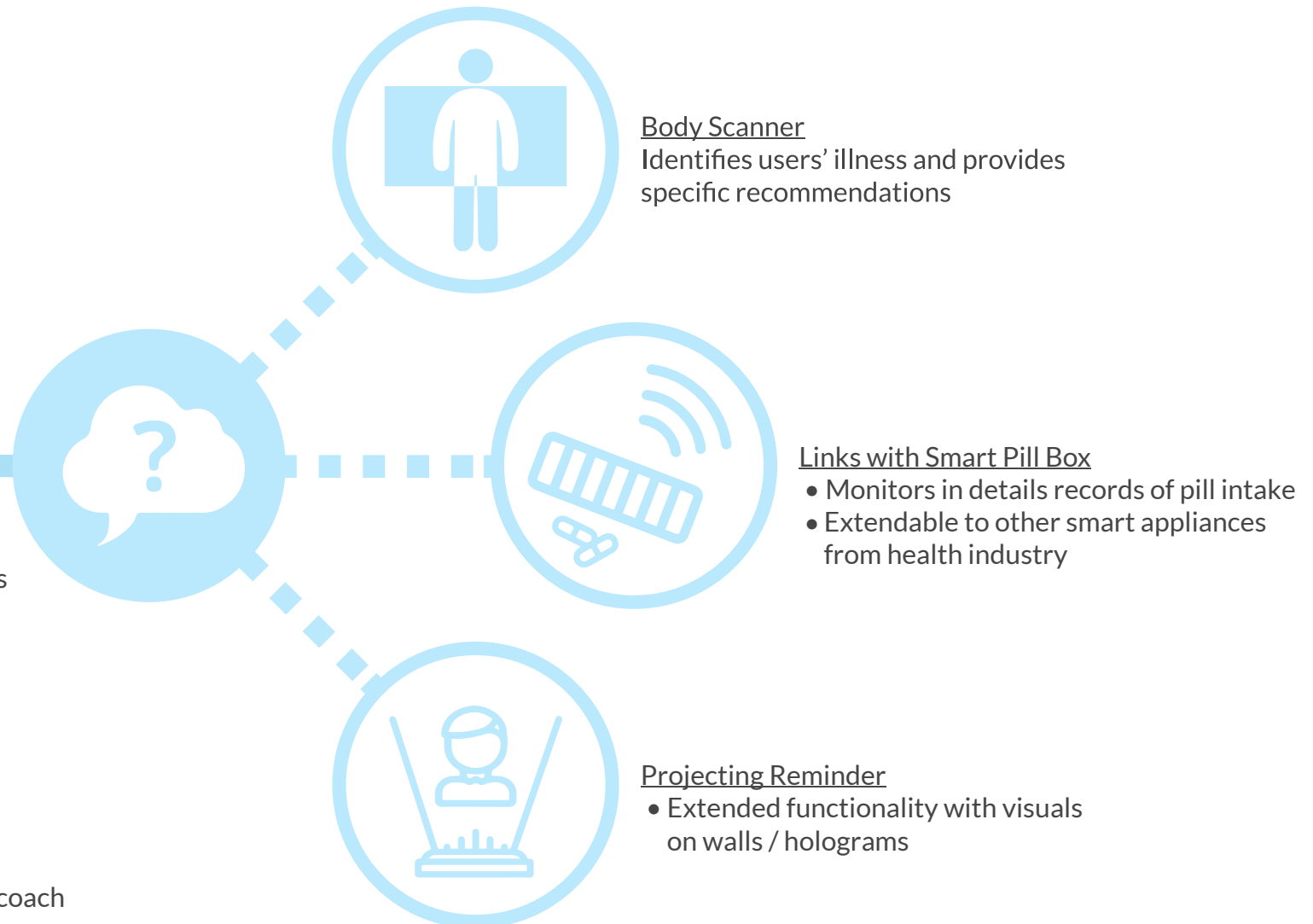
Not feasible at the moment, but can become a reality in close future

es
(heart monitor...) &

at will reward users
, exercise, monitors temperature or heart rate
dback regarding summary of the day

recipes
(Health Care companion)
they can just ask smart device for more details

Order supplements
Smart device can become users' own personal coach





MY HABIT SKILL - PRESENT





MY HABIT SKILL - EXTENSION



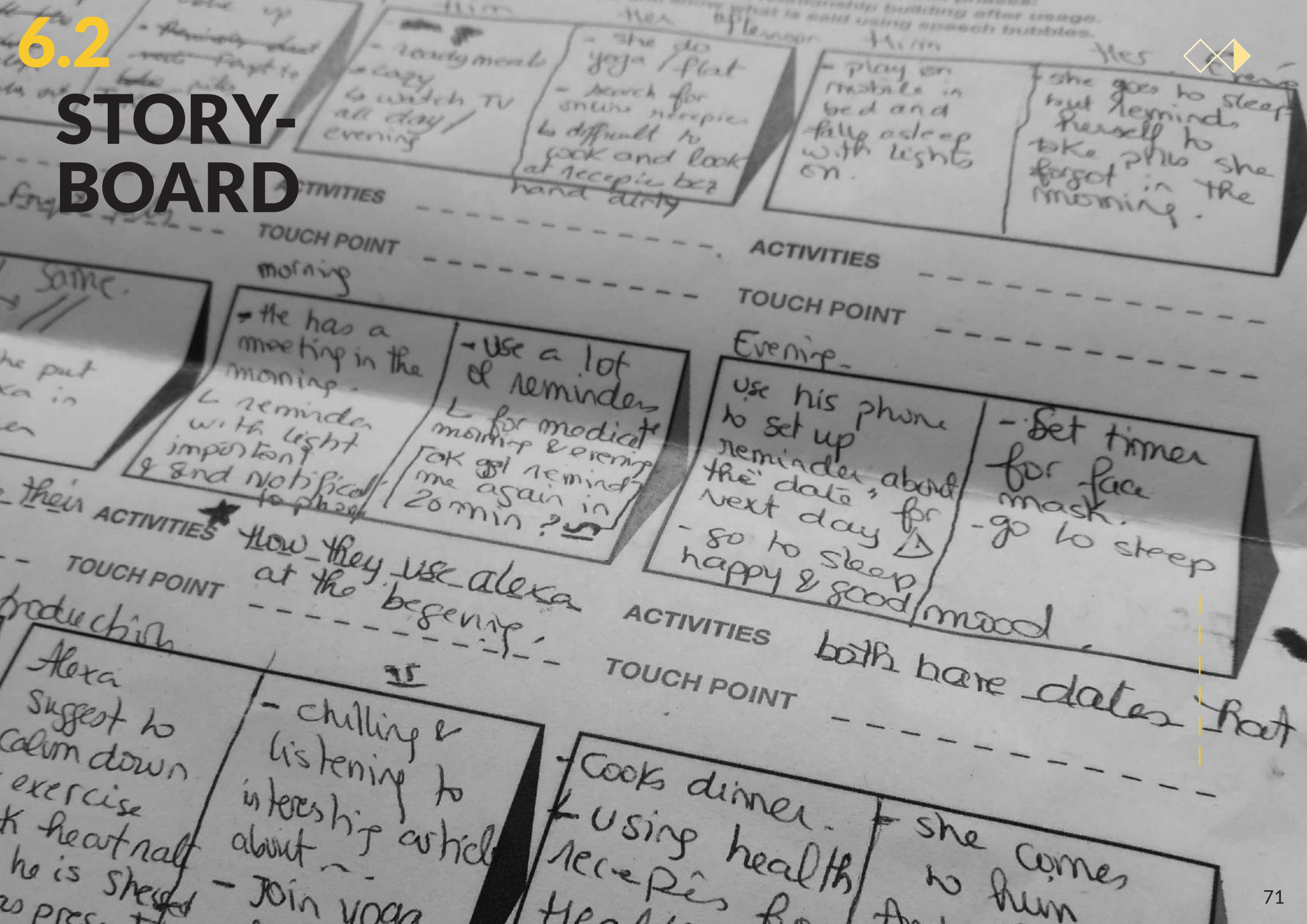


MY HABIT SKILL - FUTURE



6.2

STORY-BOARD



LOVE STORY OF TWO DIFFERENT PEOPLE

HE IS A BUSY, SENIOR ENGINEER.
SHE HAS A HEALTHY LIFESTYLE
AND HAS AN OFFICE JOB.

1



2



3



4



5



6



7



8



THEY KEEP FORGETTING THINGS... ONE DAY, THEY BOTH BOUGHT ALEXA ...



9



10



11



12



HE STARTS TO CHANGE HIS UNHEALTHY LIFESTYLE AND GOES TO THE GYM REGULARLY

AND THIS IS WHEN HE MET HER AND FELL IN LOVE.



6.3

VIDEO - PROTOTYPE

HABIT FORMATION & SYSTEM INTERACTION WITH ALEXA

<https://youtu.be/X9NzP8oaOrY>
<https://youtu.be/EFvVnIYpf3U>
<https://youtu.be/JciEZp3gH0I>
<https://youtu.be/k2Q8ZSINoN>

METHOD

What is it?

Video Prototyping is a prototyping method used to illustrate how users will interact with a new system via a recording. It takes users through various recorded scenarios to show them how a future system might work in the present day setting.

Why was it used?

Since the capabilities of Alexa are limited at this time, constraints have been solved by using video prototyping. For example one of the team members dubbed Alexa's reactions during recording. Later Alexa was forced to repeat what was needed from it, so later both audio and video tracks could be merged together.

How it works?

One member of the team wrote a script which acted like a text-based advert to demonstrate the opportunity that was solved by the Alexa. Another team member drew a comic-strip type story board to illustrate the scenario in a house-hold setting as a visual.

Filming lasted four days, one team member directed, another filmed using a DSLR, one team member dubbed over the audio for Alexa, two members were the main cast and the other two helped set the scenario like 'crew members' on a set.



Once filming has been completed, the scenes were count for by highlighting the 'takes' and editing the scenes. The video was re-iterated four times, at first a short-film, this later changed to three separate short clips due to feedback we received about conveying the message.



June 2018

Ashley keeps forgetting to take her pills, she takes prescriptive medications for 10 years which she should take from her pill box on her side table. However she always forgets they are there, especially when her routine is changed.

July 2018

Ashley has been using Alexa to remind her do act on tasks such as teeth whitening, pill taking and verbal communication whilst cooking. She has been able to keep a consistent routine and is benefiting form a structured lifestyle.



Next Day in 2018

Ashley orders an Amazon Echo device to try and increase her wellbeing by helping her retain a daily routine, especially her health care.

2020

Ashley is now pregnant and living with her husband, Alexa reminds her of her hospital appointment and helps her husband make a healthy breakfast with folic acid.

FINDINGS

We conceptualised a service that could be useful to both current customers and non-customers. Inspired by our user research, where we saw the utility of MyFitnessPal by Under Armour as a marketing tool, we intended to replicate the model for Holland & Barrett.

While MyFitnessPal does not directly generate revenues for Under Armour, it creates brand awareness for the company. We envisioned something similar for Holland & Barrett.

A free Alexa skill can be useful for anyone who wants to form a habit; it also makes the Holland & Barrett brand to associate with health and wellbeing. This was in fact, the first and main challenge we encountered. Young generations perceived the brand to be orientated towards a mature audience.

By providing a free service that anyone can benefit from, customers and non-customers, the brand can be experienced by a larger segment of the population.

LIMITATIONS

First of all, Alexa and other similar AI-voice assistants are not widespread technologies, even though they're growing fast. As of now, an Alexa skill would only reach a small segment of the population or customer base.

Secondly, our concept assumes that habit formation happens at home, where you can interact with Alexa-powered devices, which might not always be the case.

Furthermore, we have not considered the marketing approach needed for this service to succeed.

How can the customers be informed about this service?

A possibility, for Holland & Barrett, would be to promote along with its Healthbox, when customers need to form new habits regarding their pills intake. Healthbox is a natural fit for

the service.

Finally, it is hard to predict a clear return on investment for our concept. How many active users would translate into Holland & Barrett product sales? These are all unknowns, since our research only used qualitative methods. The idea needs further investigation and to be further de-risked so that it becomes clear that it is also solid from a financial perspective.

CONCLUSION

Overall, our multi-level concept offers suggestions on how to approach a rising AI market in the context of the health and wellbeing space. The future is closer than we expect.

8

APPENDIX

APPENDIX A

Diary

Holland & Barett Diary Study

Name:

Age:

Medication and/or Vitamins:



Did you take your medication today?

When during the day did you take this?

What reminded you to take your medication?

How do you feel today?

Comment

1 2 3 4 5 6 7 8 9 10



How many days did you remember to take your medication on?

What was your biggest prompt?

Did you use any technology?

Do you think your medication affects mental wellbeing?

DIARY - GRAPHICS

The colour green was chosen to represent the Holland & Barrett Brand, as well as representing vitality, well-being with natural connotations. The flow lead the eye through all questions, making the interface easy to understand.

APPENDIX B

Gantt chart

		FEB - 18										MAR - 18																										
		Week 01					Week 02					Week 03					Week 04					Week 05																
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	1	2	3	4	5	6	7	8	9	10	11	12
		S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M
Task	Start	Finish																																				
Group Formation	05 - FEB	07 - FEB																																				
Create Online Project Blog																																						
Identify Belbin Team Roles																																						
Secondary Research	06 - FEB	10 - FEB																																				
Background																																						
Market Research																																						
Competitors																																						
Technologies																																						
AI Devices																																						
Client Briefing Meeting Preparation																																						
Client Briefing Meeting	13 - FEB	13 - FEB																																				
Update Online Project Blog - Client Project Brief																																						
Assignment 1 - Project Direction Report (20%)	14 - FEB	23 - FEB																																				
Background																																						
Market Research																																						
Project Objectives																																						
Target Users Group																																						
Technologies																																						
Submit draft Project Direction Report to Blog	19 - FEB	19 - FEB																																				
Comment on Project Direction Reports of Group 7	19 - FEB	19 - FEB																																				
Project Progress Review Tutorial - Plans for Data Collection	19 - FEB	19 - FEB																																				
Act upon Feedback Received from Tutors & Peers																																						
Data Collection, Analysis, and Sampling Methods																																						
Project Deliverables - Implementing New Technological Solutions																																						
Project Planning & Gantt Chart																																						
Brand Logo, Graphics & Slogan																																						
Project Direction Report and Brand Identity	23 - FEB	23 - FEB																																				
Brand Identity Graphics/ Banner	23 - FEB	23 - FEB																																				
Primary Research	19 - FEB	25 - FEB																																				
AEIOU Observation Method																																						
Service Safaris																																						
Questionnaire & Interviews																																						
Data Analysis	19 - FEB	25 - FEB																																				
Affinity Diagram																																						
Persona																																						
Empathy Mapping																																						
Ideas Generation	21 - FEB	03 - MAR																																				
Contextual Scenario																																						
Product-User Interaction																																						
Technologies																																						
Project Progress Review Tutorial - User Research Findings	26 - FEB	26 - FEB																																				
Client Contact 1 - Skype	26 - FEB	26 - FEB																																				
ID - Major Project Brief Online Submission	02 - MAR	02 - MAR																																				
Project Progress Review Tutorial - Initial Concepts	05 - MAR	05 - MAR																																				
ID - Design Week Assignment Submission	09 - MAR	09 - MAR																																				
Concepts Development	27 - FEB	17 - APR																																				
User Research - Evaluation																																						
Initial Concepts Generation																																						
Unique Selling Points																																						
Update Online Project Blog - Findings of User Research & Initial Concepts																																						
Provide feedback on Group 7's Concept Ideas	12 - MAR	12 - MAR																																				
Project Progress Review Tutorial - Concept Development	12 - MAR	12 - MAR																																				
Client Contact 2 - Skype	12 - MAR	12 - MAR																																				
Summative Peer-review	13 - MAR	13 - MAR																																				
Revised Concepts Based on Feedback																																						
Storyboard																																						
Project Progress Review Tutorial - Revised Concepts Development	16 - APR	16 - APR																																				
Provide feedback on Group 7's Revised Concepts	16 - APR	16 - APR																																				
Concept Screening																																						
Digital & Physical Modelling	17 - APR	29 - APR																																				
Planning for Mock-ups, Models, and Prototypes																																						
CAD Modelling																																						
Material Selections																																						
ID - Major Project PDS Online Submission	20 - APR	20 - APR																																				
Project Progress Review Tutorial - Finalise Concept Development	23 - APR	23 - APR																																				
Client Contact 3 - Skype	23 - APR	23 - APR																																				
Creating Mock-ups, Models, and Prototypes																																						
Ergonomics Considerations																																						
UX - Service Design Interim Formative Assessment	25 - APR	25 - APR																																				
Project Progress Review Tutorial - Visuals, Mock-ups, Models, and Prototypes	30 - APR	30 - APR																																				
Comment on work of Group 7	30 - APR	30 - APR																																				
Assignment 2 - Project Deliverables (60%)	01 - MAY	18 - MAY																																				
Design Boards																																						
Design Models / Animation																																						
Presentation Slides																																						
Presentation Rehearsal																																						
Online Project Blog	18 - MAY	18 - MAY																																				
Client Contact 4 - Presentation Meeting	18 - MAY	18 - MAY																																				
Project Booklet	18 - MAY	18 - MAY																																				
Peer Review - Assignment 2	18 - MAY	18 - MAY																																				
Assignment 3 - 1000-word Personal Reflective Statement (20%)	19 - MAY	25 - MAY																																				
Personal Reflective Statement																																						
Personal Reflective Statement Submission	25 - MAY	25 - MAY																																				
ID - Major Project Presentations	25 - MAY	25 - MAY																																				

[illegible]

