

# Appendices

## Contextmapping




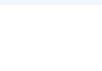
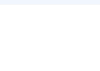
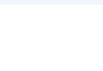
Name \_\_\_\_\_ Gender \_\_\_\_\_ Job \_\_\_\_\_ Location \_\_\_\_\_ Date \_\_\_\_\_

**Step 1**  
Please describe your one day by writing/drawing on the timeline.  
(an example is on the right side)

**Step 2**  
Using the emotion icon to mark your happy moment and unhappy moment.

**Step 3**  
Using the star icon to mark the time you spend with your family.

**Example**

Name	Gender	Job	Location	Date
<p><b>Step 4</b></p> <p>Please take 1-3 pictures to express your 'happiness' in a day.</p> <div> <div></div> <div></div> <div></div> </div>				
<p><b>Step 5</b></p> <p>Please take 1-3 pictures to express your 'unhappiness' in a day.</p> <div> <div></div> <div></div> <div></div> </div>				

Name \_\_\_\_\_ Gender \_\_\_\_\_ Job \_\_\_\_\_ Location \_\_\_\_\_ Date \_\_\_\_\_

**Step 1**  
Please describe your one day by writing/drawing on the timeline.  
(an example is on the right side)

**Step 2**  
Using the emotion icon to mark your happy moment and unhappy moment.

**Step 3**  
Using the star icon to mark the time you spend with your family.

**Example**

8:30 起床 (wake up)

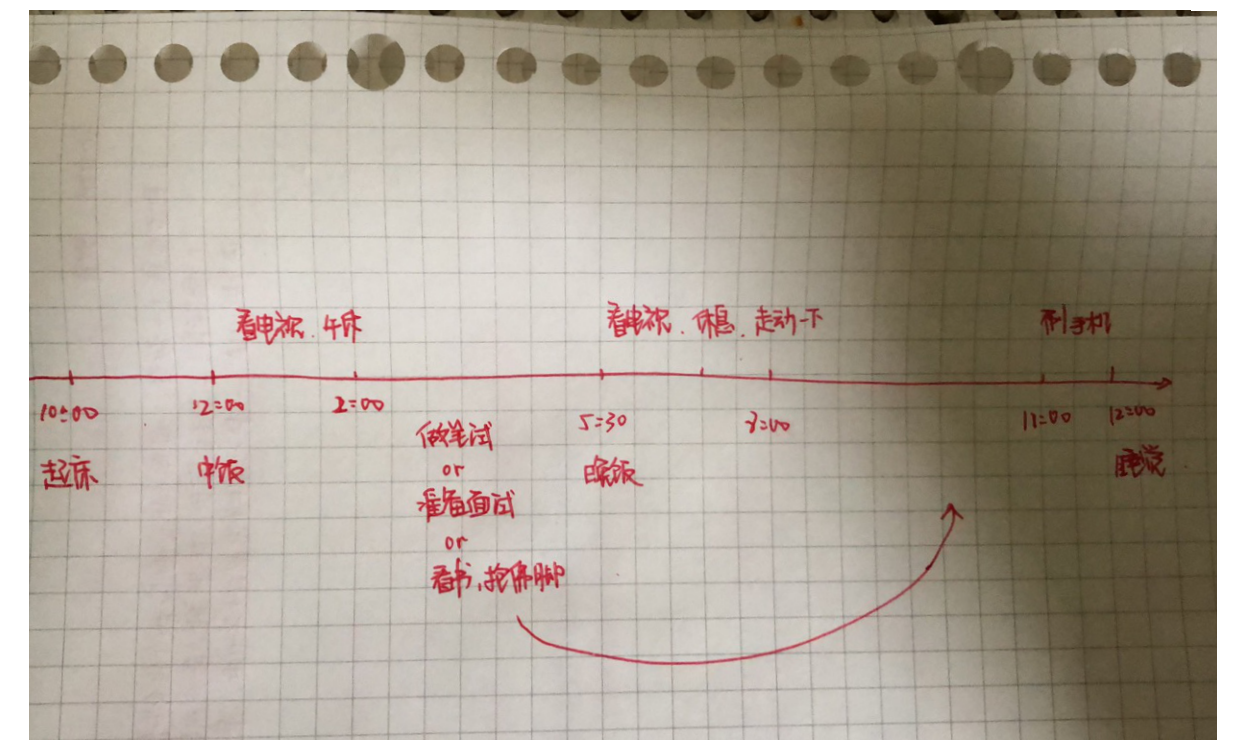
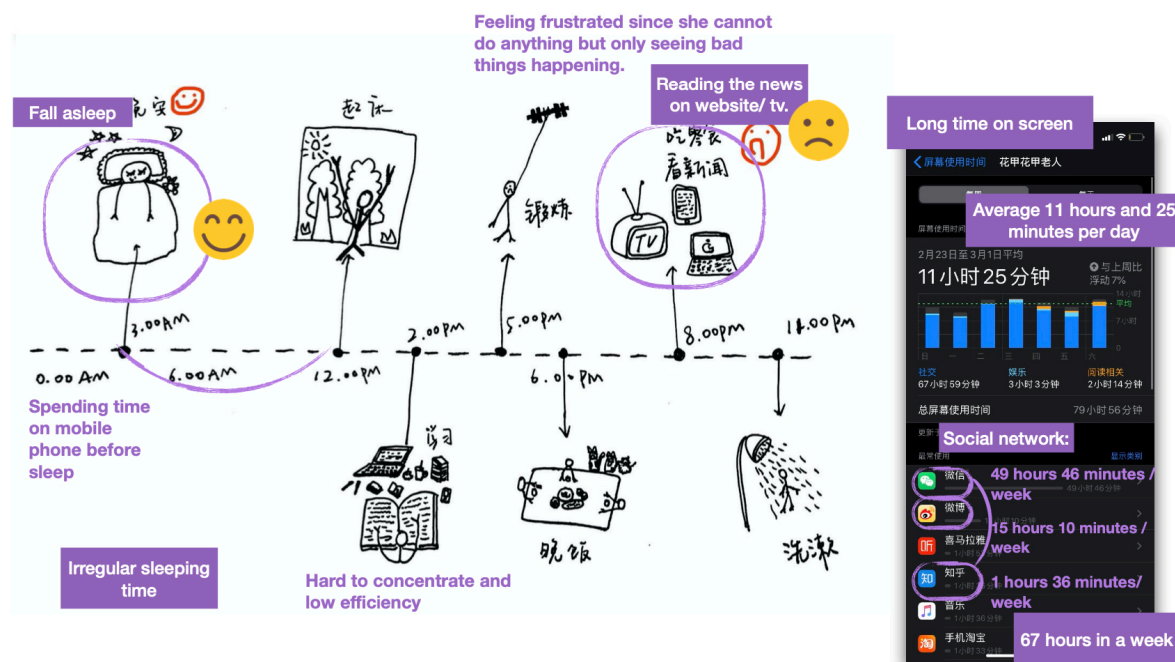
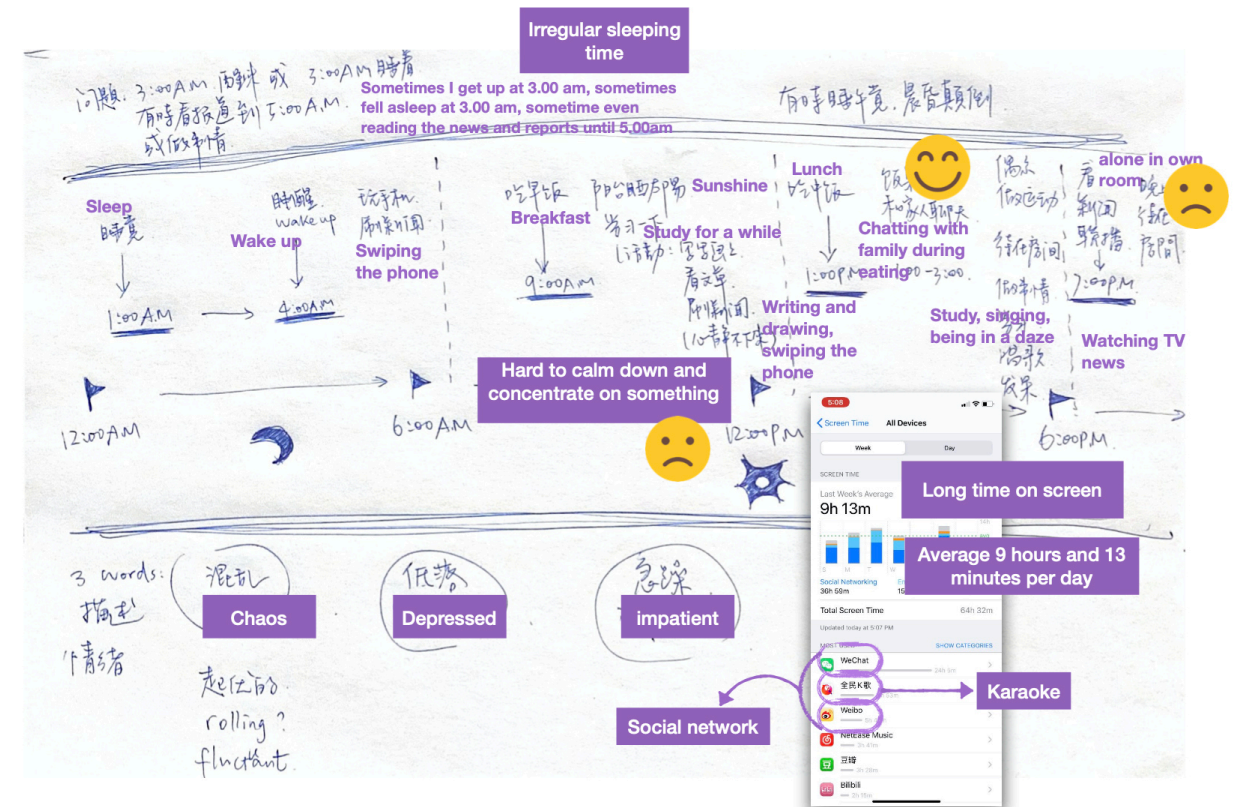
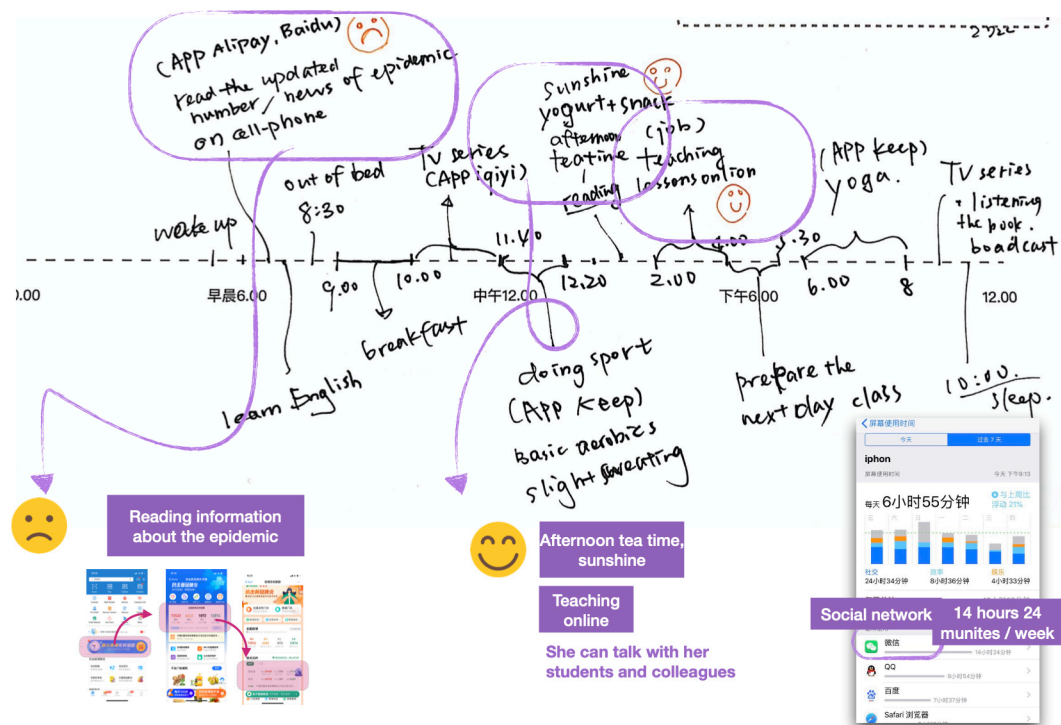
0:00 6:00 12:00

刷手机  
起床
午餐
刷手机
看疫情新闻  
(学习强国)
看疫情新闻
做作品集
看剧
睡觉

10:00
11:00
12:00
13:00
14:00
14:30
19:30
24:00

[illegible]







# Questionnaire

## 1. Gender

- ☐ Male female
- ☐ other

## 2. Age

- ☐ <18 years old
- ☐ 18-25 years old
- ☐ 26-30 years old
- ☐ 31-40 years old
- ☐ 41-50 years old
- ☐ 51-59 years old
- ☐ >60 years old

## 3. Occupation

- ☐ Hospital related work
- ☐ Other work
- ☐ student
- ☐ retirement

## 4. Location

- ☐ Wuhan
- ☐ Other city in Hubei
- ☐ Other province in China
- ☐ Out of China

## 5. Living condition

- ☐ Live alone
- ☐ Shared room
- ☐ Live with family

## 6. Work during the epidemic (you can choose more than 1 answer)

- ☐ Work from home
- ☐ E-learning
- ☐ Work outside
- ☐ No need

## 7. Is anyone you know was infected (choose less than 4 answers)

- ☐ Me
- ☐ My family

- ☐ Friend
- ☐ people I know
- ☐ No

## 8. How long do you usually take to know about the epidemic each day?

- ☐ <0.5 hours
- ☐ 0.5-1 hours
- ☐ 1-2 hours
- ☐ 2-3 hours
- ☐ 3-4 hours
- ☐ > 4 hours

## 9. Time you spend online (Using mobile phone, computer, TV etc.)

- ☐ <1 hour
- ☐ 1-3 hours
- ☐ 3-6 hours
- ☐ 6-10 hours
- ☐ > 10 hours

## 10. How do you get information about the epidemic (choose less than 4 answers)

- ☐ personal experience
- ☐ SMS / Phone / Video
- ☐ Social network/ platform (WeChat, Weibo, etc.)
- ☐ Website (Google, Baidu, etc.)
- ☐ TV
- ☐ Radio, broadcast
- ☐ Newspaper, magazine
- ☐ Authoritative journals / papers

## 11. Most used online application/platform during the epidemic (you can choose more than 1 answer)

- ☐ Semi-opened communication (WeChat, QQ, Facebook, etc.)
- ☐ Opened social network (Weibo, Douban, Instagram, etc.)
- ☐ Online shopping (Taobao, Hema, etc.)
- ☐ Office communications (Dingtalk, etc.)
- ☐ Entertainment (video, music, e-book reading, etc.)
- ☐ Games (Online Mahjong King Glory, etc.)
- ☐ Sports and health (Keep, etc.)

- ☐ Others\_\_\_\_\_

## 12. To what extent do the following 6 types of messages cause your negative emotions? (5-star rating)

(optional) Acquaintance's experience (someone you know confirmed with coronavirus, difficulty in getting medical treatment, etc.)

1	2	3	4	5
---	---	---	---	---

Updated confirmed cases data

1	2	3	4	5
---	---	---	---	---

True records of the epicentre (diary in epicentre, asking for medical help, equipments distribution, etc.)

1	2	3	4	5
---	---	---	---	---

News about medical support (Supported by national medical team, death of doctor in central hospital, etc.)

1	2	3	4	5
---	---	---	---	---

Rumours and public opinions ('Shuanghuanglian - a kind of Chinese medicine incident', loss of medical supplies, etc.)

1	2	3	4	5
---	---	---	---	---

Political speech and stigma (regional discrimination, political conspiracy theories, etc.)

1	2	3	4	5
---	---	---	---	---

## 13. What measures would you take after seeing the information that leads to negative emotions? (you can choose more than one choice)

- ☐ Talk with family
- ☐ Talk with friends
- ☐ Share opinions on social networks
- ☐ Write a diary
- ☐ Art creation
- ☐ Leisure (music, movies, games, etc.)
- ☐ Study
- ☐ Do nothing
- ☐ Others \_\_\_\_\_





Front side

1

2

3

4

5

Back side

Mom 1

48 years old

Dad 1

50 years old

Daughter 1

21 years old

Son 2

21 years old

Mom 2

46 years old

Family 1

Friend

Family 2

Nagging

Self-disciplined

Couch potato

Slovenly

Restless

1

You are an optimistic person and willing to influence others. Your task is to help a family member with bad emotions to feel better.

2

Pessimistic (seeing the news of garbage truck delivering food, feeling very angry), your task is to complain about it during a family chat.

3

You are a warm hearted person and your task is to provide some recommendations to a family member with bad emotions.

4

Feeling bad but do not want to talk to others. Your task is to show your mood on face but not talk about it.

5

Very rational, you never influenced emotionally by others. Your task is to be rational during a family talk.



## Final test

Participant \_\_\_\_\_ Gender \_\_\_\_\_ Age \_\_\_\_\_  
Occupation \_\_\_\_\_ Location \_\_\_\_\_

### Interview questions

#### Design goal

Can you guess the goal of this design?

The design goal is to help quarantined young adults in Wuhan with mild mental health problem by providing them chances to have more communication with peers.

Do you think the design fits the design goal?

#### Vision1. Together

1. Do you think this mini program can provide you chances to reach your peers in a casual way? (score 1-7)
2. Do you think the 'hi' and 'bye' messages could bring you warmth while quarantine at home. (score 1-7)

#### Vision 2. Public

3. Do you think the mini program can remind you being in a more public 'tea room' comparing with you stay at time and have a rest. (score 1-7)

#### Vision 3. Unexpected

4. Do you think this mini program can provide you an unexpected experience with freshness in a quarantine day? (score 1-7)
5. Do you think the 15-minute alarm can remind your duty while having a rest and help you to have a better working schedule. (1-7)

#### Vision 4. Dutiful

6. Do you think it can encouraging you and your friends/peers to support each other mentally and recharge yourself for work. (1-7)

#### Desirability

Do you like this mini-program? Will you use it if you are in this context?

### Observation sheet

Task	Log in	Pre-settings	Choose a mode	Pairing a person	Alarm for 15 minutes	Leave the conversation	Set people he/she want to talk again
Participant							


Tasks	Completion
<b>Setting modes</b>	
Open the function and choose the working mode	P1 P2
Set the time limit for working mode	P1 P2
<b>Pairing another user and chat</b>	
Find the button for random pairing	P1 P2
Enter the conversation	P1 P2
Be reminded for 15 mins	P1 P2
Leave the conversation	P1 P2
<b>Joining a group conversation</b>	
Find the button to join a friend's conversation	P1 P2
Prolong and leave the conversation	P1 P2

● Completed smoothly
 ● Completed but hesitated
 ● Asked for assistance

## Read the persona

2

### Shiyu



Age	26
Gender	Female
Location	Wuhan
Occupation	Lawyer
Living with	Parents
Hobby	TV series, cooking

**PREFERENCES**

Internet usage	<div style="width: 100%; height: 5px; background: linear-gradient(to right, purple, grey);"></div>
Offline communication	<div style="width: 80%; height: 5px; background: linear-gradient(to right, purple, grey);"></div>
Online communication	<div style="width: 60%; height: 5px; background: linear-gradient(to right, purple, grey);"></div>
Self-discipline	<div style="width: 40%; height: 5px; background: linear-gradient(to right, purple, grey);"></div>
Solitude	<div style="width: 30%; height: 5px; background: linear-gradient(to right, purple, grey);"></div>

**Negative emotions**

Sadness

Frustration

Tired

**BIO**

She just finished her holiday and back to work online these days. She usually felt tired after working in front of the screen for hours and less sense of achievement than before. She did not feel relaxed while taking a break alone at home between working hours. She felt frustrated after working for a whole day. The tediousness of days made her bored and lack of energy.

She was not active on the social network, since compared to texting people online, she preferred to talk to people face-to-face.

**Pain points**

No colleagues while working

Boring days

Long time in front of screens

**Needs**

Real relaxation during break

Motivation to work

Diversity and excitement in a day

## Trying the prototype



### Task List

1. Log in
2. Pre-settings
3. Choose a mode
4. Pairing a person
5. Alarm for 15 minutes
6. Leave the conversation
7. Set people he/she want to talk again

## Interview

1. Do you think this mini program can provide you chances to reach your peers in a casual way ?

○ ○ ○ ○ ○ ○ ○ ○

2. Do you think the procedure 'hi' and 'bye' message could bring you warmth while quarantine at home.

○ ○ ○ ○ ○ ○ ○ ○

3. Do you think the theme of the platform remind you being in a public 'tea room' in physical world.

○ ○ ○ ○ ○ ○ ○ ○

4. Do you think this mini program can provide you an unexpected experience with freshness while staying at home for long time.

○ ○ ○ ○ ○ ○ ○ ○

5. Do you think the 15-minute alarm can remind your duty while having a rest and help you to have a better working schedule.

○ ○ ○ ○ ○ ○ ○ ○

6. Do you think it can encourage you and your friends/peers to support each other mentally and accumulate energy to work.

○ ○ ○ ○ ○ ○ ○ ○











## Desirability

- I will try it, I think it is attractive for me at least. But I am not sure whether I can pair my friends.
- I'll try it for days, but it depends on its popularity, if my peers not use it, I have nothing to play on it.
- I'll use it during quarantine, I was eager to try everything interesting.
- '... It is really lacking of this kind of thing. If I want to talk to someone online, the habit before quarantine was - try not to disturb others. But during quarantine, every body is at home, you could actually call them, but the habit restricts you. However, 'calling' (this form of connection) is changed, for now sending e-mails, or what's app, wechat message becomes a 'pressure' for others, (these behaviours means) you want to ask for help, or talk a very important task, maybe it is better to give a phone call.'
- ' But I want to talk to someone, maybe not an important thing... I think telephoning maybe the best way for not disturbing others, I can finish talking in short time, but if (I chat by) texting, 10 mins are not enough.
- Generally, I think it is a normal chatting app plus time limit function.
- It is replaceable, Wechat can not only phone call, but also video call.
- There was no other platform could see whether your friends (is free to talk or not), you can just talk to (them) directly.
- I like it (the greeting message).. because it is funny. Firstly, they are my acquaintance, familiar with, then, hearing the greeting from familiar people makes me happy, also, you have some versions of greetings, I think is very fresh, no other social platform provide a greeting before starting a talk.
- I do want to try to talk to the stranger (a friend's friend), it may be very interesting, but may be awkward.

## Together

- '...I feel that it can show a person's personality, everything (about the personality) is in the message, it is interesting...'
- '...it can make you feel..you are still connect with the world, not been isolated...'
- '...at least you are not being isolated, you are still with your friends, all of you are connected...'
- 'It depends on the content of the message, if the message is similar to what I recorded just now, very normal, not designed, happy, or funny opening sentences, then, it is just like a normal 'hi', not like a ritual.
- I am thinking whether my boss can see me on it, if he can see me online, he might think I am free.
- If I hear very creative greeting messages, I think maybe I will go to reset my message, but I can not come up an idea in a short time (during testing), so I did not do that.'
- It supports me talk in a group, that made me feel (I am) together with other people.
- It is replaceable, I can use wechat to have a group chat. Every one was very boring and free, we can gather (in Wechat).

## Public

- '...it can make you feel..you are still connect with the world, not be isolated. But it is not public, that is a different environment if you stay outside...the part 'I can enter another person's chatting room is more public.'

## Unexpected

- 'After all, it matches randomly, I have over 100 of friends, it is a great uncertainty (to pair another person)...also, there are a lot of people I do not always (have opportunity to) talk to.
- 'they are all the people I choose to talk to, I know who are in that group.'

## Dutiful

- 'Of course, it already urged me to go back to work, let me not waste time.'
- 'if I was really busy, I would count every minutes in my mind, em, when I took a shower I played music, I would listen how many songs I played..i would think..maybe too long for shower, then get out (of the bathroom) immediately.. for me, if I felt really headache about...anxious about that, that must be important. It told me 'it's time', that could be a good excuse for ending the chat.
- In case you run into a very decadent friend, or the friend with low efficiency, he drags you down, then your efficiency is reduced. I have encountered this situation before...
- It differs, if talk to a person who are not on the same page with you, or the person do not give any advice to others, not listen to others, only talk about herself/himself, is meaningless.
- My heart is like a rock, If I want to go back to work I'll do that, if I want to chat, I'll definitely ignore the reminder. It also depends on the chat itself, if I talk to a person I do not want to talk for long time, of course I'll leave immediately even before 15 mins but it is kind of impolite.
- '(if) I have work to do, then I will directly go to work without chatting, maybe I am not your target user, because I do not chat in tearoom while working...I go to tearoom only when I need water or coffee.. it is a public space, other people are working maybe you will be seen by your boss, you know...we usually chat by testing during working hours, maybe it is only our company, other company may have more relaxing company atmosphere, it depends on different company.

I think 15 mins are too short for me, I will add tea many times if the person on the other side not refuse me.

I'll not chat with others before I finish my work, it is not suitable for me.

- Chating with friends is a very relaxing experience for me, I could get more energy back to work.





**APPROVAL PROJECT BRIEF**

To be filled in by the chair of the supervisory team.

chair Jan Schoormans

date

- -

signature

Jan  
Schoo  
rmans

Digitally  
signed by  
Jan  
Schoormans  
Date:  
2020.03.20  
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**CHECK STUDY PROGRESS**

To be filled in by the SSC E&SA (Shared Service Center, Education & Student Affairs), after approval of the project brief by the Chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total: 27 ECOf which, taking the conditional requirements into account, can be part of the exam programme 24 EC

List of electives obtained before the third semester without approval of the BoE

☒ YES all 1<sup>st</sup> year master courses passed

☐ NO missing 1<sup>st</sup> year master courses are:

name

date

23-3-2020

signature

CB**FORMAL APPROVAL GRADUATION PROJECT**

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked \*\*. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks?
- Does the composition of the supervisory team comply with the regulations and fit the assignment?

Content:



APPROVED



NOT APPROVED

Procedure:



APPROVED



NOT APPROVED

comments

name

Monique von Morgen

date

30-3-2020

signature

MvM

Mental health care tool for self-quarantined people during an epidemic project title

Please state the title of your graduation project (above) and the start date and end date (below). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

start date 05 - 03 - 2020 - - end date

**INTRODUCTION \*\***

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

The new coronavirus, now known as COVID-19, has gone on to affect over 80,000 people around the globe, causing over 2,900 deaths (World Health Organisation, March 5). Quarantine, as an efficient method to control the spread of coronavirus, has been used by cities/towns during the pandemic. Closed stores, streets that look like ghost towns, overflowing hospitals, staffs in protection suit paint a picture of at least 16 cities quarantined near the centre of the outbreak, millions of people are restricted to go outside of their home, checking the raising number of confirmed cases every day. As the healthcare system strains to battle the coronavirus epidemic, another health crisis may appear on its hands: deteriorating mental health. Take China, the country with the most confirm cases as an example, governments made great efforts to provide medical supplies and daily necessities for the people in need but not enough mental health support. A recent Chinese Psychology Society survey found that 42.6% of 18,000 Chinese citizens tested positive for having anxiety related to the coronavirus epidemic. Of 14,000 evaluated for depression, researchers discovered that 16.6% of individuals may be dealing with moderate to severe depression (China News, Feb 4).

/Main stakeholders

National/ global health globalization: experts with public health  
Phycological Consultancy: psychologists, psychological volunteers  
The people who work at the front line: policemen, volunteers  
People who are sequestered at home

/opportunities

Mental health still remains a relatively taboo subject to a large number of people in China, a small percentage of people have awareness and are willing to actively seek mental help (Yin, H. 2019). Since the limited number of psychological experts, there are a lot of hotlines out there staffed by a lot of volunteers without well-trained, which may do harm more than good. These two challenges can be design opportunities to find a better way to provide mental supports.

/Limitation

- Mental health is a sensitive topic which may cause offence or other problems with unsuitable way while talking, therefore, the proper communication and research methods for researching should be carefully chosen and used.
- The issue is currently taking place and changing every day, the changes may cause the differences in the mental states of people.
- The in-context research is difficult to execute because of the epidemic, the current methods for directly getting in touch with target users are texting, video chat and phone chat. Observations and in-context interviews can only be conducted by my friend in the context.

space available for images / figures on next page



Personal Project Brief - IDE Master Graduation

introduction (continued): space for images



image / figure 1: A street in a quarantined city



image / figure 2: Volunteers are helping deliver groceries



## PROBLEM DEFINITION \*\*

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

Who Young people (20-30 year olds) with mild mental health problems who are self-isolated at home with their families more than a week

Where Homes in quarantined cities (I will focus on Wuhan, China a city with 11.08 million people, but also compare with the similar situation in the Netherlands)

When During the quarantine period of COVID-19 epidemic

Why Isolation made the internet becomes the main methods for them to know the outside world and connect with other people. But diverse information about the epidemic on the internet also brought the main triggers of mood swings. For example, false information, comments with stigma, bad news from friends or conspiracy theories may lead to the accumulation of negative emotion in this special period with limited face-to-face social connection.

How To strengthen community and family support-the the second level of the intervention pyramid for mental health and psychosocial support (Feb 2020. IASC MHPSS) For example, to guide and encourage family-scaled psychological communications.

Goal To reduce sequestered young people's negative emotions while gaining information about the epidemic and help them build a positive mental state.

## ASSIGNMENT \*\*

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, ... In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

To design a product-service combination to help self-isolated young people with mild mental health problem reduce negative emotion during the epidemic of COVID-19. The main tasks are understanding the context and target group, finding out the psychological basis and exploring a suitable intervention point for the design.

### \*Research

1. To understand the current context and define the main needs, pain points of the target group and find the breakthrough for design intervention.

(What kinds of negative emotion do they usually experience? When and Why?

What are their main concerns? How do they deal with these negative emotions now?)

Context mapping sessions will be conducted on the target group. Persona also will be made to describe the target user.

2. To find out the psychological basis and opportunities for coping the situation.

Literature review: the psychological impact of quarantine in COVID-19 case, other previous emergencies such as SARS and MERS, the public's ability to recognize mental disorders and design psychology.

### \*Design

3. To generate several initial ideas

Several design ideas will be generated by mind mapping, brainstorming, co-creation session.

4. To define the final design.

Iterations of the concept will be conducted via prototyping and testing.

### \*Create

A product-service combination.

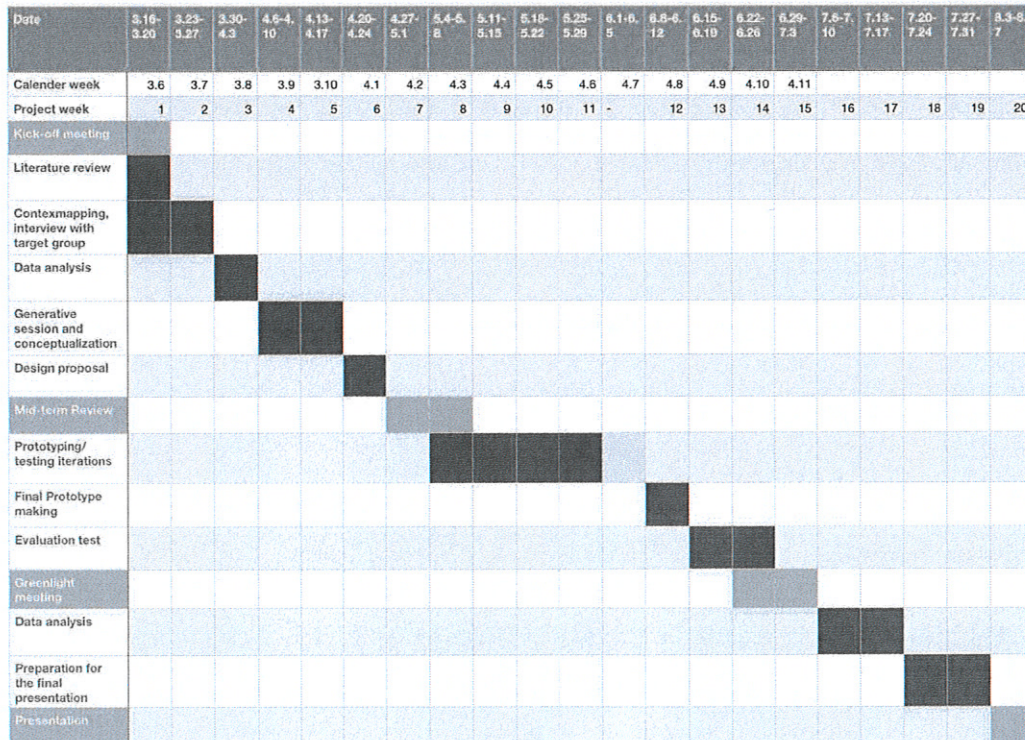


## PLANNING AND APPROACH \*\*

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any, for instance because of holidays or parallel activities.

start date 5 - 3 - 2020

end date \_\_\_\_\_





### MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, .... Stick to no more than five ambitions.

#### Motivation

The inspiration for the project is about the current global health issue. As Chinese students with family and friends live in a seriously influenced area, while talking with them on phone, I find that they usually experience anxiety and uncertainty which influence their daily life. I want to help them but the only thing I can do is listening to what they talk and comforting them. As a designer, I am highly motivated to use the design knowledge I have to create a little improvement for this current situation.

#### Competence

I am experienced with doing research about negative emotions since I did an emotion-related project in the previous year. This time, I could better manage and use research methods. Also, I can make use of my strength, data visualization - collecting data and clarifying them with visuals during the design process to deal with this complex context.

#### Ambitions

To gain a better understanding of the relation between psychology and design from this design practice.

To improve my research skill for sensitive topics.

The final design could be taken into consideration for future/current emergency.

### FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.



