DESIGN THINKING WORK KIT

1/Plan 2/Prepare 3/Discover **4/Define** 5/Develop 6/Deliver 7/Build community
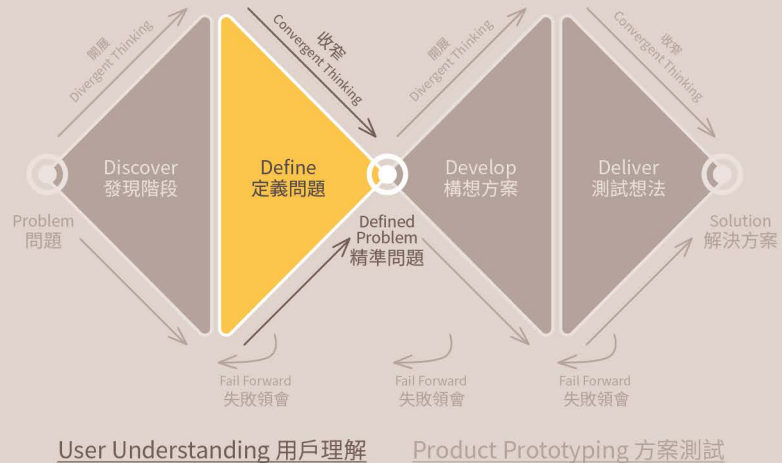
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After discovering numerous user needs and problems in the previous phase, it is normal for us to feel confused: when there are so many complicated problems going on, which one should we start with? **Phase 4: Define** is the key to answering this question.

Defining is a process that converges insights and narrows down the focus to a few key problems. The process involves a logical analysis of our previous findings. In this phase, we need to clear our minds and be receptive towards the process of discovery by various team members. We should spend enough time to process our findings and avoid drawing hasty conclusions. A well-defined problem is of great significance in the innovation of services and spatial transformation.

Divergent Thinking 開應
Convergent Thinking 收窄
Divergent Thinking 開應
Convergent Thinking 收窄

Discover 發現階段
Define 定義問題
Develop 構想方案
Deliver 測試想法

Problem 問題
Defined Problem 精準問題
Solution 解決方案

Fail Forward 失敗領會
Fail Forward 失敗領會
Fail Forward 失敗領會

User Understanding 用戶理解   Product Prototyping 方案測試

You may wonder why we would spend so much time on defining the problem. Shouldn't we focus on looking for the solution instead?

Fear not, as one of the greatest scientists in history, Albert Einstein, once said, "If I had an hour to solve a problem, I'd spend 55 minutes thinking about the problem and 5 minutes thinking about solutions."

A solution is effective only if it answers the right question. So don't worry about spending too much time on the groundwork, as finding the right problem is pivotal. Only by identifying the right question can you find a suitable solution.

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Practical Skill 1:

" I don't notice anything special when talking to users
- it sounds like another day-to-day conversation to me.
Why should we analyse them deeply? "

Users will often reveal their thoughts in their daily conversations. We may get used to what they say and tend to ignore the details. If we do not listen to our users from new perspectives, we could easily miss spotting crucial clues. There are reasons behind every word from the users. If we recall our interactions with the interviewees and analyse their responses in detail with empathy, we will be able to determine their actual needs.

While users might not feel comfortable to express themselves explicitly in their day-to-day conversations, such analysis enables us to connect the dots and eventually develop a better understanding of their inner feelings.

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Practical Skill 2:

" Among all the problems we' ve discovered, which one should we tackle specifically? "

This is the most challenging question of this phase. A successful Discover phase (Phase 3) will have left us with much information on hand. We might have felt moved when interviewees opened up about their experiences. We might also have been able to spot a number of pain points that deserve our attention. The following steps will therefore be useful to help narrow down the scope.

Review the discoveries and the team' s limitations. Before we start defining the problem, we may refresh our memories by reviewing the insights from the Discover phase (Phase 3). It would also be useful to review the limitations of the project and the team itself, which should have been reviewed In Phase 1 (Plan) and Phase 2 (Prepare). Reviewing the discoveries helps determine the scope of the problem more accurately and prevent the team from solving a problem that is beyond its capacity.

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What is the biggest pain point? After reviewing the discoveries, you might recall immediately the most striking pain point identified from the Discover phase. This might be an intuitive feeling, but if the specific experience is powerful enough, it could become a source of motivation for the team to take it from there. The bigger the pain point, the more motivated the user will be in wanting to address it, and the more popular your designated solution will be. Thus it is better to invest time and resources in dealing with significant pain points than in solving unimportant issues for the users.

Which pain point occurs most often? Besides looking for the most significant pain point, we need to be aware of the frequency with which each pain point occurs. If a few pain points share similar severities but different frequencies of occurrence, the one that occurs the most often should be chosen in order to ensure that we are tackling the user's true problem.

Which pain point most needs to be addressed? After considering the severity and frequency of a pain point, it is essential to check if any solutions or alternatives have been introduced already. Before you decide on your final choice of key problems, studying what the existing services provide could avoid wrong positioning of the users' problems.

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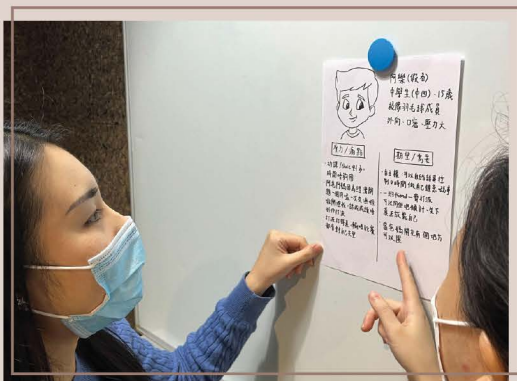
Allow time for recollection / Seek a new perspective. While the amount of information received in the process of discovery could be overwhelming, allowing time to take a break would be helpful. Redirecting our attention temporarily helps us unravel the confusion as this step cannot be rushed. New perspectives can be introduced to inspect the users' needs and different interpretations might arise in the process.

After moments of recollection, the most memorable pain point that you eventually identify should truly resonate with the users from the bottom of their hearts and become your biggest sense of purpose in the process. Meanwhile, bear in mind the need to share the defined problem with your users so as to make adjustments according to their comments. Remember, however, that all data should always be kept confidential in order to respect the users' privacy.

4/Define Design Thinking Toolkit

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1/Plan 2/Prepare 3/Discover **4/Define** 5/Develop 6/Deliver 7/Build community

Practical Skill 3:

" Should we invite users to define the problem with us? "

Users should not be engaged in the problem definition process, as this Phase involves the opinions and actual identities of more than one user. Such data has to be kept confidential. Allowing certain users to be engaged in the process could break the trust of the interviewees. For certain deeper discussion questions, users might be triggered to recall some unpleasant experience, which could impair the team's ability to review the problem from new perspectives. Needless to say, the problem defined and formulated will require further validation with the user in due course.

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Practical Skill 4:

" How many key problems should we come up with? "

Preferably two to three key problems.

If we only identify and define one key problem, the resulting solution will only address a limited part of the issue. Besides, the key problem chosen might not necessarily be the most critical one. By selecting two to three key problems, we can address the issue from different perspectives and increase the quality of the resulting solutions.

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Practical Skill 5:

> " Why should we go on to define key problems instead of hiring professionals to design appealing spaces or services directly? "

Without analysis, findings from the Discover phase are just fragments of raw data. Addressing the problem at its root will require a thorough discussion. Relying on solely professional knowledge to provide a solution might look good on the outside, yet fail to address the issue on the inside.

Professionals may propose numerous appealing solutions based on their expertise and knowledge. However, without a solid understanding of your specific users, it will not be possible to design a solution that addresses the underlying needs most effectively.

DESIGN THINKING WORK KIT

Tool 1:
Persona

Persona sums up target users and acts as the talking point for various discussion sessions, bringing the project into focus more easily.

Duration	30 minutes
Environment & materials required	Interview record, sufficient A4 paper, coloured pens
Attitude and skills	Analyse rationally – try to recall as many details of the interviews as possible
Participants	All team members
Expected outcome	Create persona(s) by describing users' characteristics, defining their pain points and consolidating their needs. Project participants can quickly resonate and reach a consensus through the persona(s) created, and propose user-centric solutions based on the persona(s).

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1/Plan 2/Prepare 3/Discover **4/Define** 5/Develop 6/Deliver 7/Build community

Tool 1:
Persona

Tool Sample

Persona   Name: Version:

Three key characteristics:
(to distinguish between target users and
other users)

	Pain points	Corresponding needs

4/Define Design Thinking Toolkit

DESIGN THINKING WORK KIT

Tool 1:
Persona

Example

Persona	Name:	Version:
	Yuki	**1**

Three key characteristics:
(to distinguish between target users and other users)

A young person not in education or employment; mostly taking up part-time jobs

Passive and with strong pride

Enjoys art and cultural activities (singing, movie-watching, leather crafting)

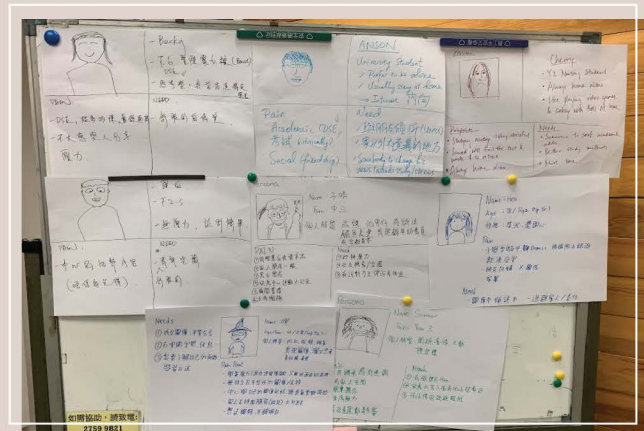| Pain points	Corresponding needs
Difficult to schedule meet-ups with friends from high school	Make new friends and companions
Lacks employment and financial stability but reluctant to ask for money from family	Find help and advice on his/her future planning
Feels worthless about being idle all the time	Gain appreciation and recognition from peers

DESIGN THINKING WORK KIT

1/Plan 2/Prepare 3/Discover **4/Define** 5/Develop 6/Deliver 7/Build community

Tool 1:
Persona

Why:

- To visualise the target users so that the project team has a clear picture of their targets throughout the Design Thinking process
- To be empathetic towards the users and resonate with their needs
- To allow the project team to track and make timely updates of the persona description at any phase

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1/Plan 2/Prepare 3/Discover **4/Define** 5/Develop 6/Deliver 7/Build community

Tool 1:
Persona

How:

Step 1: Identify your target users
- Think of your existing users and interviewees. Who are the most in need? Who do we want to serve the most? Who are the significant ones that most come to your mind? Share the names of these people with your team and discuss.

Step 2: Discuss the possible Persona(s)
- Discuss the features of these people and summarise them into two or three persona(s). These characters possess similar traits, behaviours and needs.

Step 3: Construct the Persona(s)
- Draw the character and give him/her a name. A typical name will help recall everyone's memories of your target users.

Step 4: Fill in the characteristics of each Persona
- Write down three important characteristics.

Step 5: Write down each Persona's pain points and corresponding needs
- Put yourself into the shoes of the Persona's character. List the struggles and troubles he/she has and his/her corresponding needs.

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1/Plan 2/Prepare 3/Discover **4/Define** 5/Develop 6/Deliver 7/Build community

Tool 1:
Persona

Tips:

1   A Persona refers to a group of users with similar characteristics rather than a specific person.

2   The more accurate the Persona is, the more effective the Design Thinking process will be. The team should review the Persona from time to time and make necessary updates.

3   A Persona might have numerous pain points and needs. Choose the ones that are most important and relevant to the theme of the project.

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Tool 2:
Empathy Map
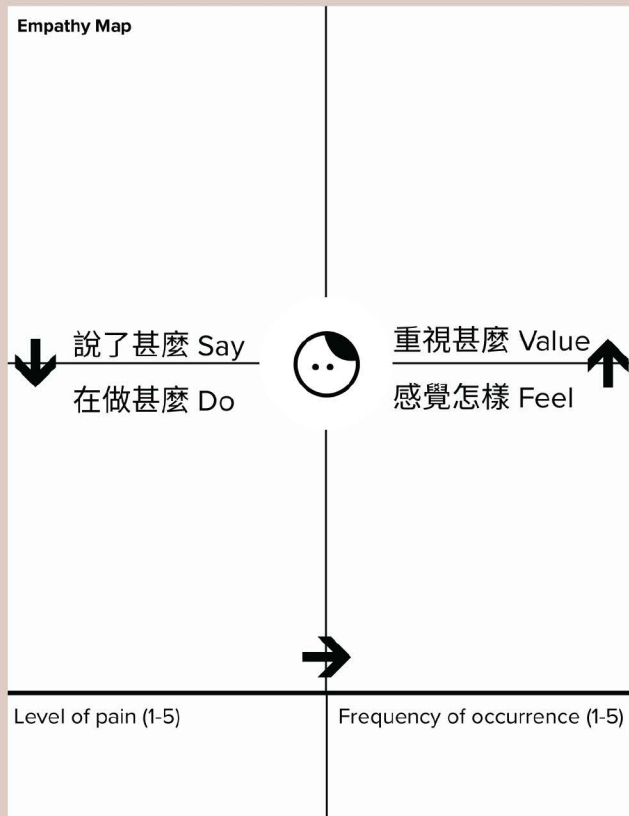
Review the empathetic interviews, discuss the users' thoughts and experiences. Identify key problems that require further actions.

Duration	2-3 hours
Environment & materials required	Interview record and summary, sufficient A5/A4 paper, coloured pens
Attitude and skills	Analyse rationally; try to recall as many details of the interviews as possible, be curious
Participants	All team members
Expected outcome	Complete a few empathy maps, understand clearly what target users are looking for, and define key problems to be solved

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1/Plan 2/Prepare 3/Discover **4/Define** 5/Develop 6/Deliver 7/Build community

Tool 2:
Empathy Map

Tool Sample

Empathy Map

說了甚麼 Say
在做甚麼 Do

重視甚麼 Value
感覺怎樣 Feel

Level of pain (1-5)   Frequency of occurrence (1-5)

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1/Plan 2/Prepare 3/Discover **4/Define** 5/Develop 6/Deliver 7/Build community

Tool 2:
Empathy Map

Example

Empathy Map

There were a few times when I felt stressed, I just kept texting the social worker. I told them everything because I wanted to share my experience. Receiving responses makes me feel more comfortable.

Wants to be understood
Wants to get rid of his/her anxious and insecure feelings
Wants to find someone who can understand him/her

說了甚麼 Say

重視甚麼 Value

在做甚麼 Do

感覺怎樣 Feel

When feeling stressed, he/she uses social networking apps to express negative feelings to someone trustworthy immediately.

Feels anxious about the need of receiving a response, wants to be calm again.

Level of pain (1-5)

Frequency of occurrence (1-5)

4

5

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Tool 2:
Empathy Map

Why:

- Analyse the words of the user and their behaviour at four different levels
- Allow the project team to understand the situations and thoughts of the users, so as to become more empathetic towards them
- Look for directions to define the key problems

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1/Plan 2/Prepare 3/Discover **4/Define** 5/Develop 6/Deliver 7/Build community

Tool 2:
Empathy Map

How:

Step 1: **Review the previous interviews**
- Each team member shares a summary of the interviews they conducted and suggests key quotes from the interviews that are worth discussing.

Step 2: **Analyse the key quote**
- In groups of two or three, select a key quote and start a quick discussion with the help of the Empathy Map.

Step 3: **Fill in the Empathy Map**
- Fill the area of "Say" with the key quote, and fill in "Do", "Feel", and "Value" accordingly. Describe the level of "pain" and frequency of occurrence of the event mentioned in the key quote.

Step 4: **Gather the Empathy Maps with similar "Value(s)"**
- Put together the Empathy Maps that are related and decide on the theme.

Step 5: **Define 2-3 key problems to be solved**
- The problem statement consists of two parts: a concise action to be taken and its purpose.
  Example:
  How Might We…
  provide a space (or spatial elements) where the young users can have a sense of autonomy,
  so that those who are stressed can feel comfortable talking and be understood?

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Tips:

1 The key quotes you are analysing might not come from interviewees conducted by you. Do not hesitate to ask for further clarifications from the interviewer.

2 When drafting the action part of the problem statement, the scope should not be too wide. Otherwise, the resulting solution will be too impractical.

3 However, the scope of the aforementioned part should not be too narrow either, as it will limit the possibilities in the process of ideating solutions.