Human Centered Design Africa Toolkit

Contents

Foreword

"... I feel the other, I dance the other, therefore I am..."
– Leopold Senghor

The anthropocentric ethos of Ubuntu has significant influence in the manner in which people on the African continent co-produce knowledge through a markedly participative mode of collective and collaborative engagement. In a nutshell, Ubuntu finds expression in a philosophy that embraces the other – "I am because we are; and I participate therefore I am"…

Ubuntu as it is known in Zulu and Xhosa is also known as 'utu' in Swahili; 'unhu' in Shona, and 'botho' in Tswana. At its very core, this empathic approach elaborates the dynamism, productivity, transformative potential and creativity of working in concert with others. African philosophical traditions are human-centered by default…

The HCD Toolkit developed herein acknowledges these traditions in its conceptualization and formulation. The design research team deemed it necessary to develop a HCD Toolkit that takes cognizance of Africans' natural propensity towards collaborative endeavours, but importantly, also incorporates the context-specificity and nuances of the rich tapestry of cultures, languages and designerly ways of being, knowing and doing.

Whereas Africa is far from being a homogenous region, it has a predominantly youthful demographic and is home to just over 1 billion people living in 54 countries and speaking over 2000 languages. Uniquely, the continent has some of the fastest growing economies in the world – economic growth that is ostensibly driven by extraction of its vast wealth in natural resources, agriculture, and more recently, technology adoption and innovation. Indeed, Africa has the potential to leapfrog in a relatively short time given this positive trajectory.

To unlock the latent potential and talent of the denizens of our continent, relevant, creative, innovative, adjustable and context-responsive tools and methodologies need to be developed and deployed across the continent. To this end, the HCD Toolkit that has been developed through deep and authentic dialogue, storytelling and co-creation proffers unique benefits on account of its genesis.

Additionally, the participative and collaborative co-creative ethos has been recognised by the World Design Organization (formerly known as the International Council of Societies of Industrial Design) in its most recent redefinition:

"[Industrial] Design is a strategic problem-solving process that drives innovation, builds business success and leads to a better quality of life through innovative products, systems, services and experiences. Design bridges the gap between what is and what's possible. It is a trans-disciplinary profession that harnesses creativity to resolve problems and co-create solutions with the intent of making a product, system, service, experience or a business, better.

At its heart, Design provides a more optimistic way of looking at the future by reframing problems as opportunities. It links innovation, technology, research, business and customers to provide new value and competitive advantage across economic, social and environmental spheres.

Designers place the human in the centre of the process. They acquire a deep understanding of user needs through empathy and apply a pragmatic, user centric problem solving process to design products, systems, services and experiences. They are strategic stakeholders in the innovation process and are uniquely positioned to bridge varied professional disciplines and business interests. They value the economic, social and environmental impact of their work and their contribution towards co-creating a better quality of life. "

Professor Mugendi M'Rithaa
Professor at the Dept. of Industrial Design,
Cape Peninsula University of Technology &
President of the World Design Organization

How to use this toolkit

Firstly, congratulations and thank you for choosing to embark on this human-centered design process. We hope that this guide will be an enabling companion on your design journey.

Human-centered design is a creative approach to problem solving that starts with gaining deep insight to the lives of people you're designing for and ends with new product and service solutions that resonate deeply with end-users.

Empathy is a key driver in this process that calls you to be keenly aware of the people you're designing for. You'll spend a lot of time broadening your understanding of your target market, and their aspirations and motivations as essential influences in your design process. Remember that empathy recognizes peoples' dreams and their wishes for their lives, as opposed to 'upliftment' which is most often based on what other people think people need in their lives.

Each chapter of this HCD-Africa Toolkit represents a stage of the process. You should move through one at a time, in chronological order to build your bank of information. To bring about real, impactful change in the world, you'll need to see this process through to the end.

It will be useful to review the steps of each chapter before delving into the process so that you have an idea of where you're headed, and the objectives of each phase. The Tools & Resources section at the end of this guide is intended to support you in this process. We've included a range of activities, some useful tips and templates that are optional, but certainly useful in practice.

This toolkit has been designed to help you generate solutions in many different fields of interest, from agriculture, to manufacturing, to banking and new technology. Throughout we use examples from some industries, but the process is equally applicable across the board. No matter which industry sector you are designing for, the HCD process is essential in encouraging behavioural change that will lead to the uptake of new products or services.

At times the process can feel incredibly overwhelming, and you may feel bogged down by thoughts and ideas that do not seem to have any connection to your initial design challenge. The good news is that this usually signifies that you're on the right track.

We encourage you to have fun along the way, to express your creativity and to take the time you need to allow impressions and information to sink in. Inspiration comes at its own pace and in its own form.

We wish you great success in your mission to design meaningful solutions.

Sincerely,
Your HCD-Africa Team

Facilitator's Notes

The creative process is inherently tricky and uncomfortable as one navigates into new ideas and new ways of understanding. Working in groups, made up of a purposeful variety of characters can, at times, raise even more challenges.

The facilitator is charged with the responsibility of managing the process and ensuring that everyone is heard, participates and brings their unique perspectives and talents to the task. **Here are a few tips and tricks to help you sail through the process and some of the common difficulties that may arise.**

Creating an environment that nurtures creativity

Make sure that the group always knows what the desired outcome of the process as a whole is, as well as individual activities. Outline the goals at the start of each activity.

The best way to foster creativity is to establish a relaxed, comfortable atmosphere, away from phones and computers.

Find a dedicated space to use for the duration of your process. Equip it well with an assortment of stationery, post-its and big pieces of paper. Ensure the space encourages teamwork, with enough space to gather around a table or a poster on the wall.

Remind the team of the progress they are making as they go.

Keep a positive atmosphere by praising people's contributions, ideas, and involvement.

Sometimes, the best insights are gathered in more relaxed settings, like around the water cooler, or lunch table. **Allow for this to happen.**

Be ready for discomfort

Be prepared for the fact that at certain times you will feel like you are not making any progress.

Use role-play to get ideas flowing and people speaking.

If the group is struggling to make a decision – take a vote.

If the group is getting stuck in one way of thinking – use one of the tools listed in this guide to help encourage divergent thinking.

If the group gets very stuck, take a quick break to stretch and refresh. **Remember that discomfort is inevitable; you're tackling a difficult task.**

Manage group dynamics

As a facilitator, you should be confident enough to ask someone (politely) to wrap up their point and let another person speak.

Set clear 'rules of the game'. These should be clearly communicated right at the start of your process, and teams may be reminded of these as you go.

"Yes, and" not "Yes, but" – no negative judgements on others' ideas.

Religion is important across the continent. Maybe ask whether someone would like to offer a prayer to begin, and also at the end to show thanks.

Allow team members to negotiate time and breaks so that the facilitator becomes part of their process.

Timing & Resource Allocation

It is important to stick to the timeframes you decide for each exercise, given that you are probably dealing with overall time constraints in which to deliver a solution.

Recommended timings are included in this toolkit but the time you allocate depends on many factors, such as: the experience of the group and the facilitator, stakeholders' availability and budgets. It is important to design your HCD process accordingly.

The process requires the full-time commitment from the team leader and the core team. Subject matter experts, customers, and other stakeholders will need to be consulted from time to time.

A lot of the background work requires a dedicated project manager or team to make phone calls, travel arrangements, as well as document management and reporting. Having a 'central hub' is very useful in keeping track of processes and progress, and to build a knowledge base from which to easily share insights with other stakeholders.

Chapter 1
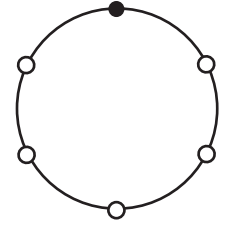
Unite

Experience
Understand
Create
Test
Launch

We have a challenge to solve, and to tackle it we need a diverse team, united by a common mission. We start by forming a team and getting to know each other. Together we decide on the difference we want to make as a design team.

↘ **The Steps You Will Follow**

1 **Form the Team**

2 **Set your Mission**

3 **Conduct Background Research**

4 **Map all Stakeholders**

5 **Frame your Design Challenge**
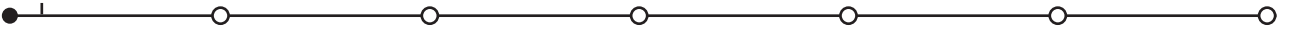
Step 1

Form the Team (Timing: 1 - 3hrs)

Decide on the team, making sure you have a diverse set of skills. Bring everyone together to get to know each other.

Who is the team that will be working on this project?
This might include team members from a sponsoring organisation, a research company helping with fieldwork, NGOs and businesses involved with the implementation of solutions, expert advisors etc. Invite a diverse group of people with different skills to help work on the challenge.

Bring everyone into one room for an initial discussion at the beginning of the project.
It is important to listen to everyone's opinions right from the start, even if their role will only come in later. For instance, you might have a partner organisation that will focus on implementation.

Help everyone get to know each other with activities such as the Human Rainbow.
Even if you feel that many or all team members know each other, these activities are useful. In order to effectively harness the collective wisdom and competencies of the design team, each team member should understand the individuals who make up the team. By understanding the values and goals of each individual within the team, they will better be able to work harmoniously towards a solution.

> **Tools + Resources**
>
> Refer to Human Rainbow activity in the Tools & Resources section at the back of the toolkit.
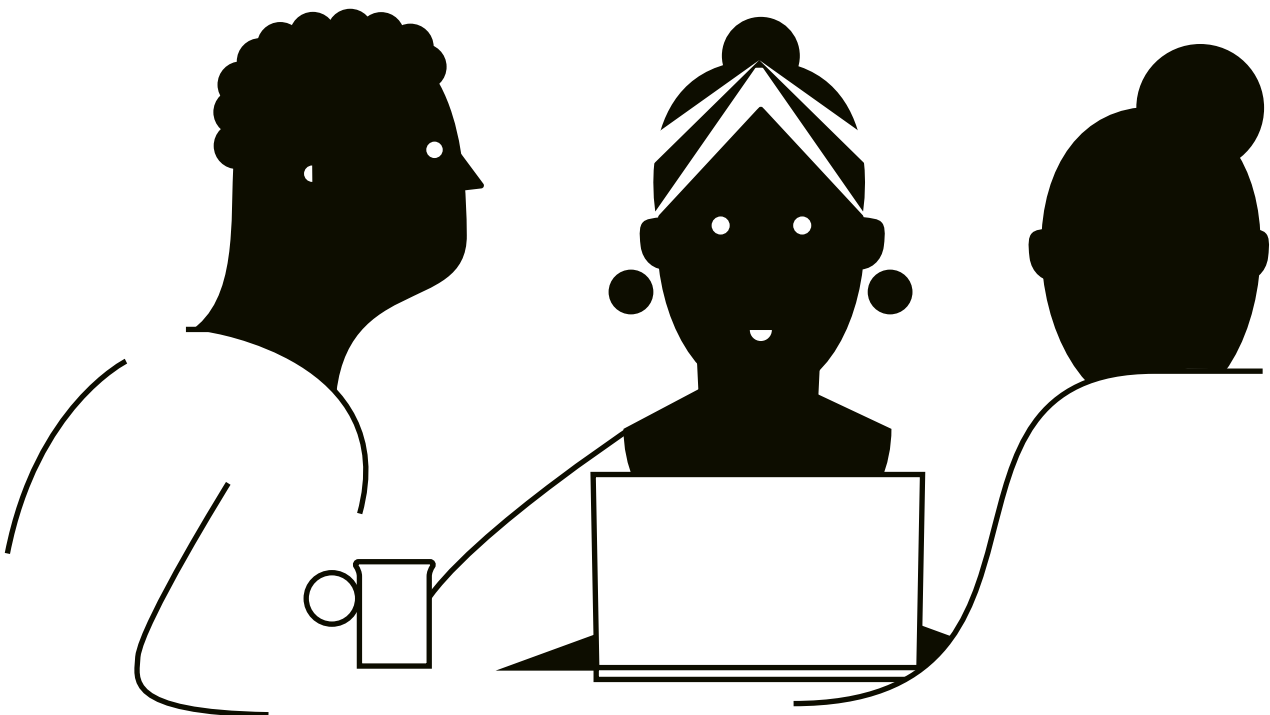
Step 2

Set Your Mission

This might have been given to the team by a client
or it could be a self-imposed goal.

1 **Discuss each of the team members' personal
goals with regard to this initial design challenge.**
It is important to understand both what the collective goal is,
as well as what each person wants to gain from the project.

If there are representatives from different organisations,
note the organisational mission of those organisations
represented in the challenge.

2 **Discuss the purpose the team needs to accomplish. This is likely
to be very broad. Use the following questions to guide you:**
> Who has initiated this project?
> What have they instructed the design team to do?
> What is the problem that needs to be solved?
> Which behaviours would you like to change?
> What outcomes does the client expect?
> Are multiple organisations involved in the project?
> What does each expect?

3 **Write your initial design challenge in one sentence.**
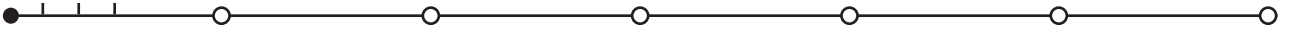When writing your mission, take the following into account:
> **IMPACT:**
Is the design challenge focussed on ultimate impact?
At this point we should not offer a specific solution,
but should focus on a desired outcome/impact.

Quote

"If I run alone,
I can run faster;
but if we run
together, we can
run farther."
–
African proverb

Step 3

Conduct Background Research

Gather as much information as you
can on the challenge.

1 Map what information you need.

> **What research has been done in this area?**

> **What other solutions have been tried?**

> **What are current trends that are relevant to this**
challenge and context?

2 Allow team members to mark where they can
add to key information topics.

3 Identify where further research must be done and assign each
team member the role of researching and presenting a topic.

4 Share information by different team members presenting
different topics. Presentations should be engaging rather
than formal.
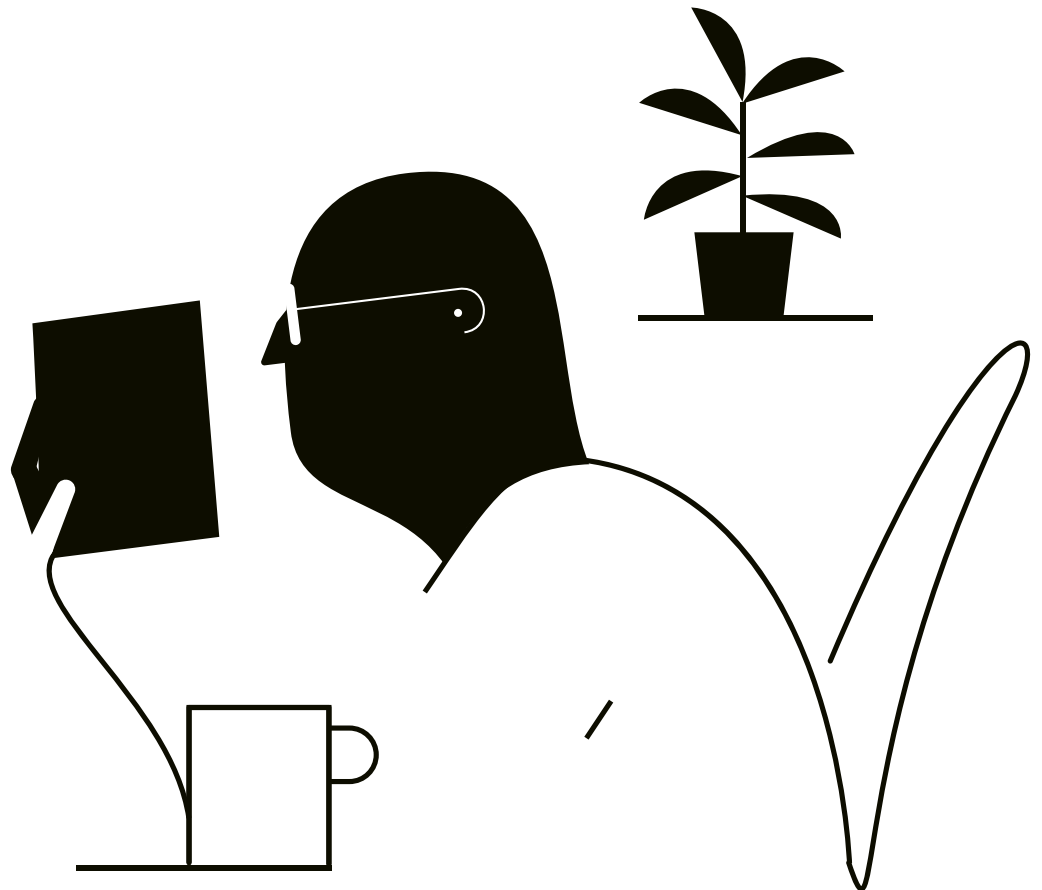
Step 4

Map All Stakeholders

A problem is influenced by many players.
It becomes increasingly complex to understand
as the number of stakeholders increases.
The solution must consider all parties.

1 Look at your Mission.
- ❯ **Is it clear who the primary beneficiary/ end-user is?**
- ❯ **For whom is the product/ service being designed?**
  This may or may not be clear, depending on the
  mandate the team has received.

2 On post-it notes, start writing all the organisations and people
involved in this challenge apart from the end-user.

- ❯ **Who commissioned the challenge?**
- ❯ **Who will implement it?**
- ❯ **Who provides the surrounding infrastructure?**
- ❯ **Who has already proposed solutions?**
- ❯ **What role does government play?**
- ❯ **Who stands to make money?**

3 Where do stakeholders' goals coincide? Where do they differ?

> **Note to Facilitator**
>
> You might not know
> all the answers yet.
> That is no problem
> at this point. Make
> a note of what
> information you need
> to seek/ validate.
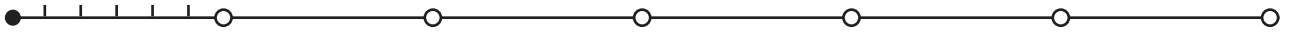
→ **Step 5**

Frame your design challenge

Your design challenge will guide the design process. However, we don't assume that we will come up with a perfect problem definition, since throughout the whole design process our understanding will develop and we'll refine the problem better.

Based on your knowledge of the various stakeholders' expectations including the client and team, what do you believe is your design team's mission?

When writing your design challenge, take the following into account:

> **Impact:**
> Is the challenge focussed on ultimate impact? It should not offer a specific solution, but should focus on a desired outcome/impact.

> **Context:**
> Does the design challenge indicate where and for whom we are designing?

> **Openness:**
> Does it allow for a variety of solutions? As with the above point, the design challenge should not prescribe a particular solution but should open up the opportunity to design many possible solutions that achieve a certain goal/impact.

> **Scope**
> It is important that the design challenge is neither too broad, nor too narrow.

> **Constraints**
> Your design challenge should take into account any constraints you may have to work within. For example: limited access to resources or technology, or geographical constraints.


Hotspot!

Writing a good design challenge is not easy to achieve so give yourself plenty of time and be prepared to try many different iterations.

You will find that at this stage the team might start getting irritated. This is normal; you're tackling a difficult task. You'll feel like you are not making any progress at a certain point but push through. If it gets really tough, take a quick break to stretch and refresh. Work through any conflict with as much patience and empathy as possible. It is helpful to appoint one facilitator whose role it is to allow everyone to speak, prevent one person dominating, and help mediate any conflict. Choose a person who is known for their ability to allow others to shine, not the person who always steals the spotlight! The person should be confident enough to ask someone (politely) to wrap up their point and let another person speak.

Chapter 2
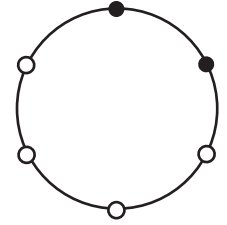
Unite

Experience

Understand

Create

Test

Launch

Good design is rooted in a deep understanding of the people who will use it. In order to really understand people we need to spend time in their environment, watching them, observing their surroundings and listening carefully.

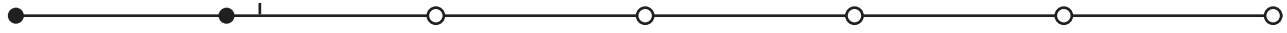Our purpose is to uncover a rich story of a person's activities and their context and how these relate to their motivations.

↘ **The Steps You Will Follow**

1. **Select Methods**
2. **Select your Interview Sample**
3. **Design your Interview Guide**
4. **Appoint Interviewers**

5. **Train Interviewers**
6. **Capturing Interview Data**
7. **Capturing Key Findings**
8. **Insights & Common Themes**
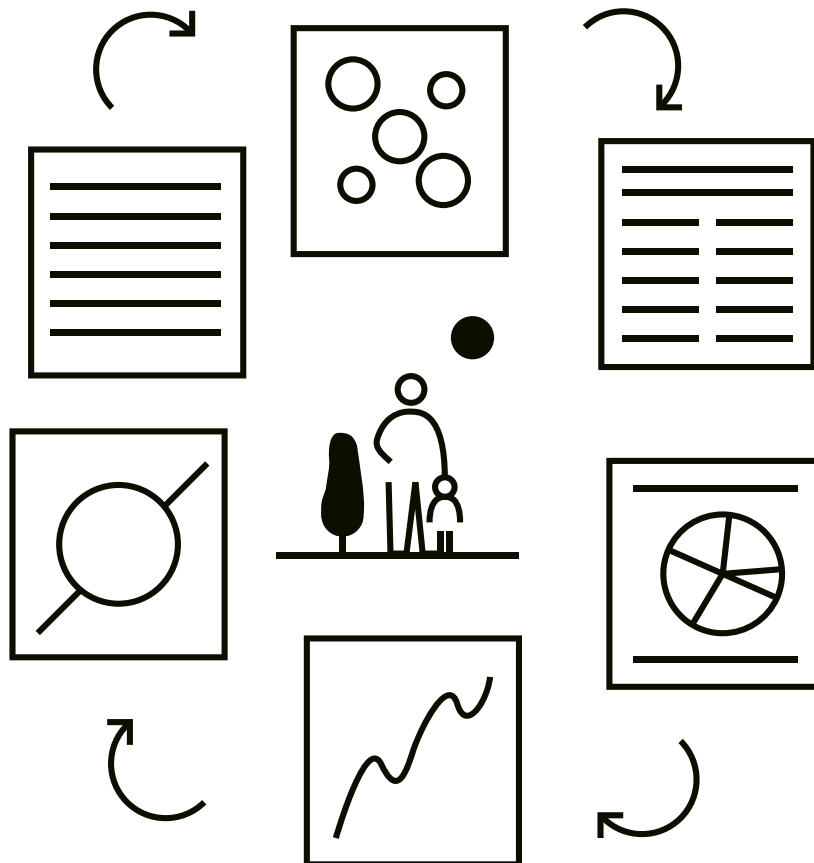
Step 1

Select Methods

Human Centred Design makes extensive use of ethnographic research to understand people. Ethnographic methods essentially involve listening (interviews) and watching (observations).
**As designers, our role is not to force our own ideas, but rather to position the end user as the most important person to consider.**

Think about the best variety of methods to use to gather data. You may choose to conduct a mix of formal and informal interviews; and to observe users in a range of different contexts. It is always a good idea to spend time, immersed in users' everyday environments to learn by experience.

Refer to the Tools & Resources toolkit for an introduction to different kinds of interview styles and activity ideas.

Hotspot!

What's the difference between observing and experiencing?

Observations
Are when you're passively watching what people do;

Experiences
Are when you get involved and put yourself in their shoes.
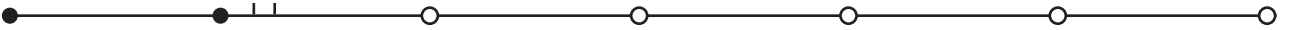
Step 2

Select Your Interview Sample

When you constructed the Stakeholder Map in step 1, you identified all the people involved in the challenge. During the research stage, it is important to gain an understanding of all these players through interviews and observations.

1 A typical sample size will be between 8 and 15 respondents. You should aim to interview different types of people, with a range of perspectives about the problem or need you hope to meet.

2 You will need to allocate at least 4 hours per interview, allowing each interviewer to interview a maximum of two respondents per day. Cross check this plan with your time allowance and budget. The number of interviews will be limited by the amount of time you have available and the budget you have for the costs of fieldwork (travel, accommodation, field workers' time).

3 Setting up appointments:

❯ **If you are using local interviewers, they might be helpful in contacting respondents.**

❯ **Snowballing – once you find one respondent, he/she might lead you to others.**

❯ **When you contact respondents, explain your intentions clearly to create realistic expectations.**

❯ **Ensure you have all relevant contact information of the person and agree on a time, day and place to meet.**

❯ **People often look for compensation, so you need to manage these expectations upfront.**

> **Note to Facilitator**
>
> Ethnographic research generally involves gathering very rich data about just a few people. This is different to market research, which favours interviewing large samples but obtaining thinner data. Although ethnographic research might be less reliable due to small sample size, the time spent with each respondent lends great validity to the data.
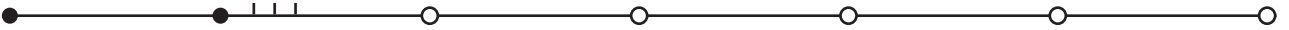
Step 3

Design the Interview Guide

The Human Centred Design approach means that we spend a lot of time exploring the underlying motivations of people, their beliefs, values and aspirations. This is gained through carefully considered interviews and observations.

(1) **How to design an Interview Guide**:   **(Timing 1 - 2hrs)**

❯ **Establish the key areas of information you are looking to uncover.**

❯ **Write questions that will lead to different topics in response.**

❯ **Frame open-ended questions, rather than questions that can be answered with yes or no.**

❯ **Use the interview guide layout to structure your questions.**
   You can find a useful example in the Tools & Resources**.**

❯ **Consider using an activity such as card sorting (see Tools & Resources) to help you move conversations to a deeper level.**

(2) **Testing the Guide   (Timing 1 - 4hrs)**
   Use the guide yourself to conduct an interview with a respondent. This person should not be one of your sample group but should be as similar as possible.

❯ **Does the flow of questions make sense?**

❯ **Do the questions gather all necessary information?**

❯ **Is the timing appropriate?**

(3) **Train a fieldworker to use the interview guide to question someone else.**

❯ Does the fieldworker ask the questions the way you intended?

❯ Do the questions prompt the information you need?

❯ Does the fieldworker follow the instructions as you intended?
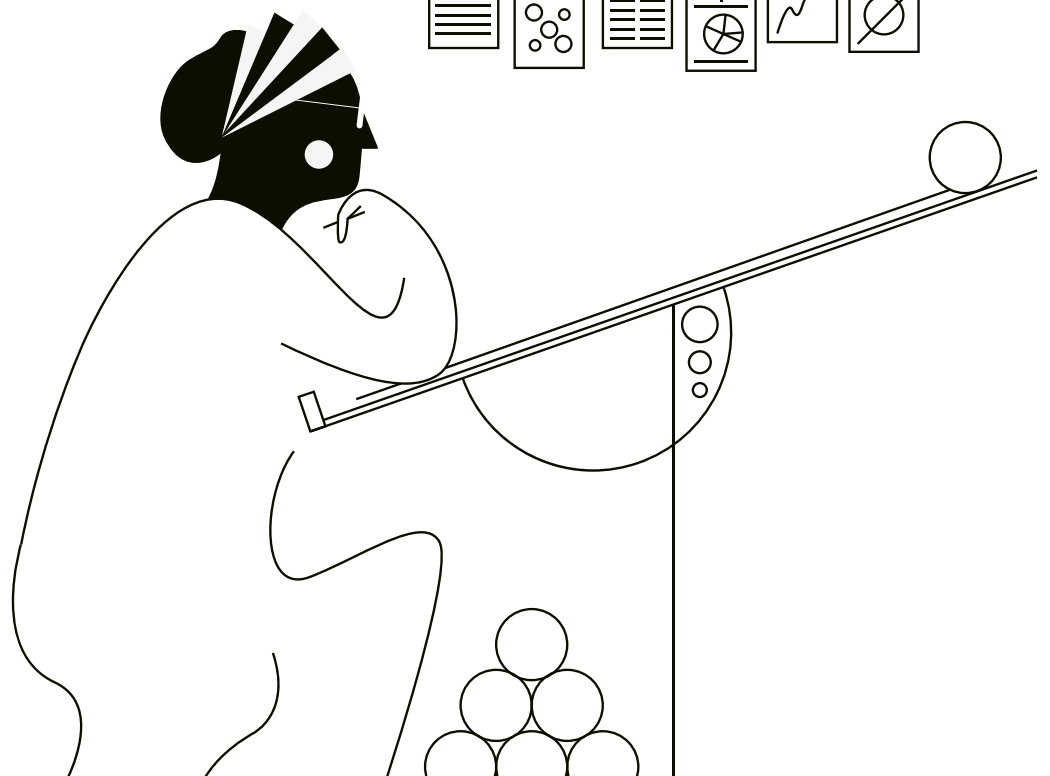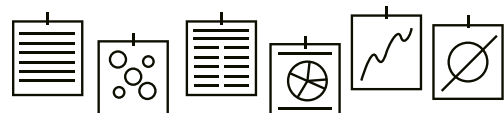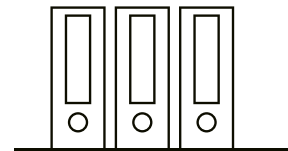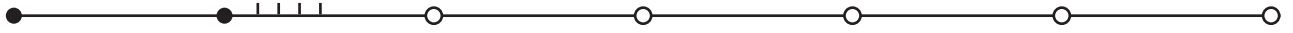
Quote
"Until lions have their own historians, tales of the hunt will always glorify the hunter" – Chinua Achebe

Step 4

Appoint Interviewers

If your team is unable to do the interviews, you may need to recruit interviewers. Use the following guidelines to help you select the best team:

> **Language**
  A good ability to speak the local language and the language used by the design team.

> **Empathy**
  Does the person have a naturally kind nature that makes you to feel at ease?

> **Coachability**
  Can the person take advice on how they might improve?

> **Availability**
  Is the person available the entire duration of fieldwork and for follow up discussions at later stages of the HCD process?
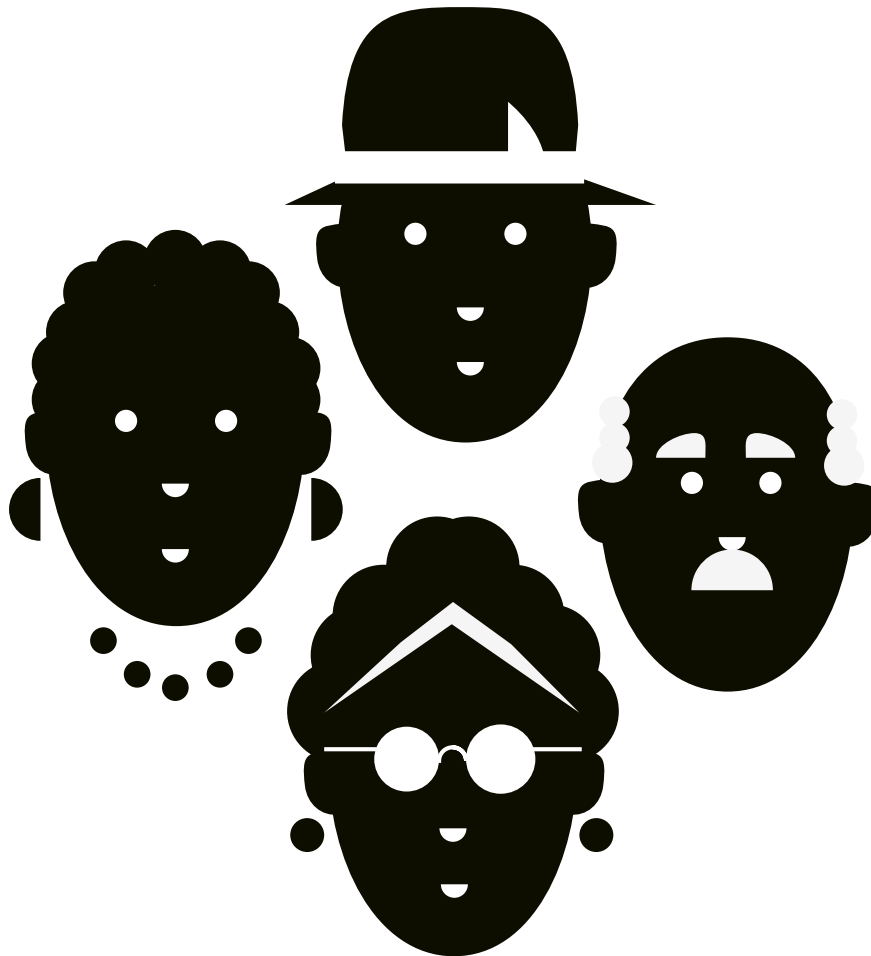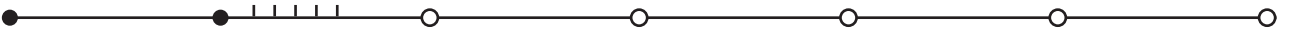
Step 5

Train Interviewers

Gather all your fieldworkers for a briefing session. This is an important step in the process. Be aware that it can take time for your team to get comfortable with interview techniques.

1 Explain your **design challenge** and what **HCD** is.

2 Explain that their role is to uncover a rich story of a person, his context and activities and the use of products/services as related to his motivations.

3 Explain the interview style you want them to use.

4 Go over the interview guide slowly and in detail, ensuring everyone knows exactly what information to gather for each point.

5 Explain any activities you might be using and how to use any stimulus materials.

6 Conduct practice interviews. Let the team get into pairs and practice asking open questions and probing.

7 Explain to interviewers the importance of capturing the interviews and how you want them to do this.

Note to Facilitator

Human-centered design is a creative approach to problem-solving that is all about building deep empathy with the people that will ultimately be the end-users of your solution. It starts with gaining deep insight to lives of the people you're designing for and ends with new solutions that are custom-made to meet their needs.

The process encourages creative ways of engagement, the generation of lots of ideas, and rapid prototyping.

When done well, HCD fuels the creation of products and services that resonate deeply with an audience.
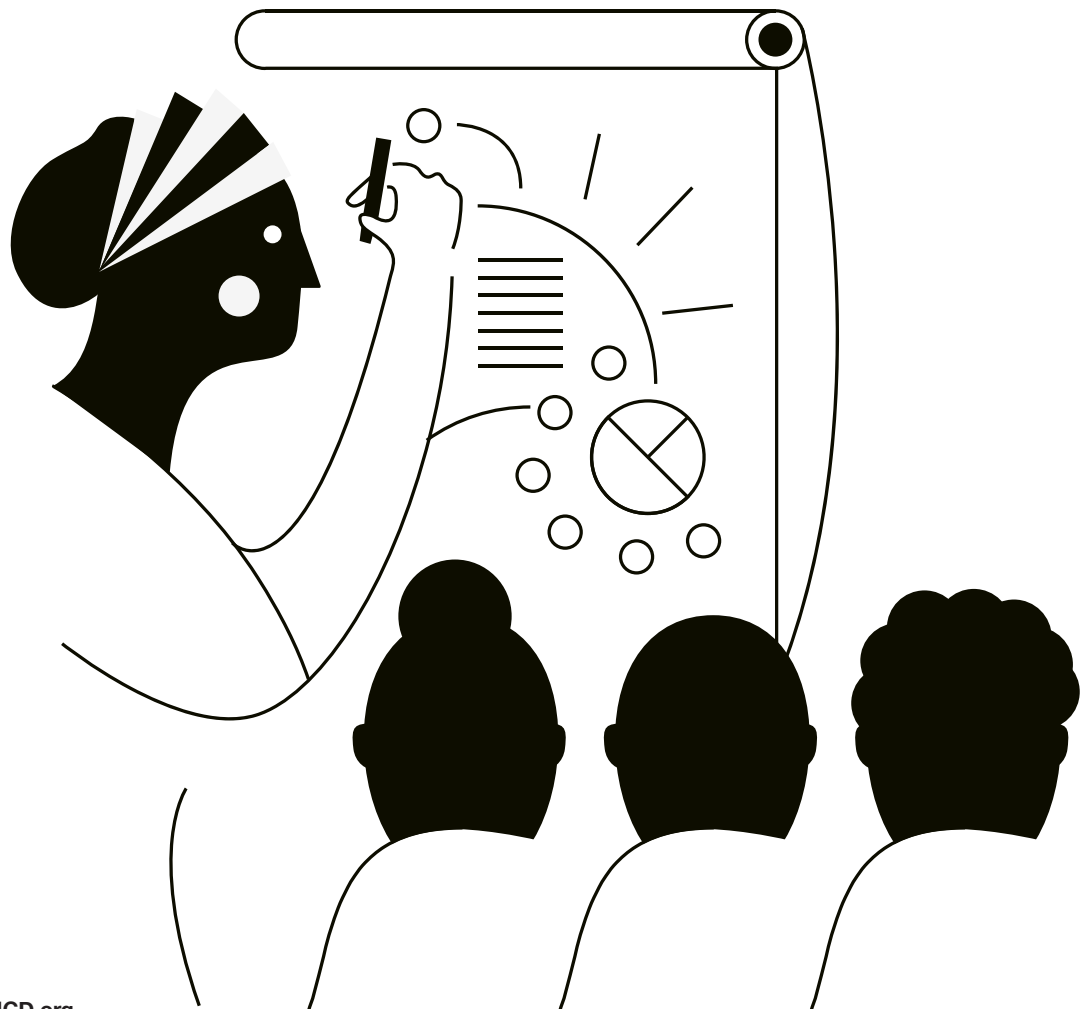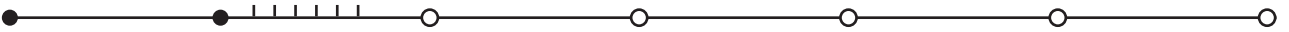
Step 6

Capturing Interview Data

It is very important that you record the interview.
This can be done in a variety of ways: notes, photos,
video and audio recording. We suggest you combine these.

1 Use an audio recorder/video to capture the entire interview. Make
sure you ask permission to document the interview and the respondent.
Where necessary, gain consent with a signature to a 'release form'.
You may have to consider personal or cultural reasons for declining
documentation, and adjust your approach accordingly.

2 Use a camera to take pictures of things the respondent shows you,
as well as other relevant people, places, machines, artifacts, livestock,
etc. that you observe. Ensure to make notes to correspond with each
picture as you go. Use video to record processes the respondent
shows you.

3 Take notes about things that surprise you, contradictions you notice
between what someone is saying and doing, things you want to explore
further, and memorable quotes.

Hotspot!

Make sure not to be obtrusive
in your note-taking and
photography.

The note-taker should not be the
person leading the interview.
Ideally you should do the interview
in a team with one person leading
the conversation, and another
taking notes , photographs and
video.

If just one person is in the field,
they should use an audio recorder
and take notes immediately after-
wards while re-listening to the
interview.
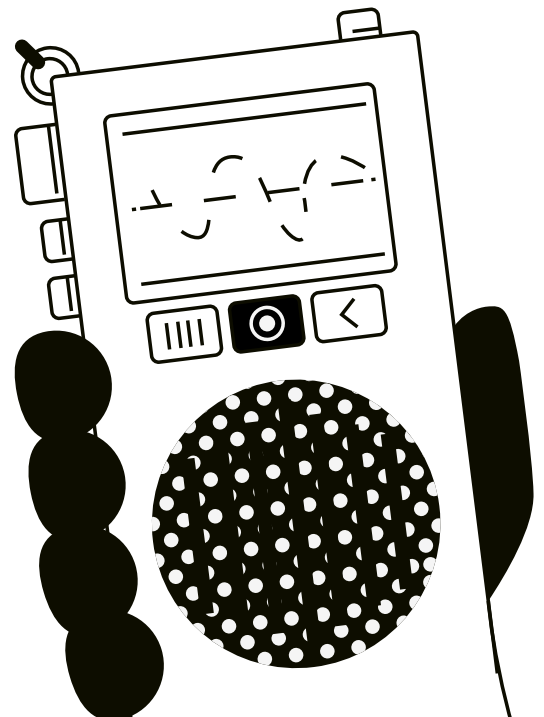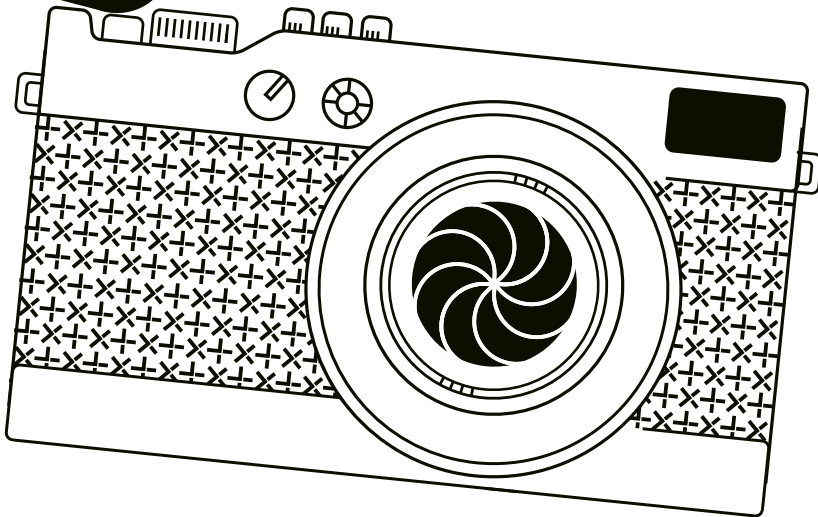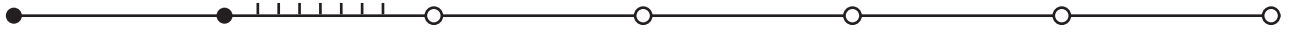
Step 7

Capturing key findings

Immediately after the interview, take some time to reflect. Each interviewer should take these notes as soon after the interview as possible. The interviewers should record their own thoughts and observations about each respondent before sharing as a group later. Create a profile template to complete based on each interview, using the following guidelines:

- **Basic info: name, age, location, activity**
- **Describe the interview venue**
- **What did the participant say/do that surprised you?**
- **What was the most memorable quote, saying, proverb or insight?**
- **What interesting story did they tell you?**
- **What seemed to matter most to the respondent?**
- **What motivates them?**
- **What aspirations do they have?**
- **What challenges do they face?**
- **What frustrates them?**
- **What is his dominant opinion of (banks)*your research topic?**
- **What contradictions stood out to you?**
  Did they say anything that didn't make sense from what you observed?
  Did any of their statements contradict each other?
- **What new topic arose that you'd like to explore further?**
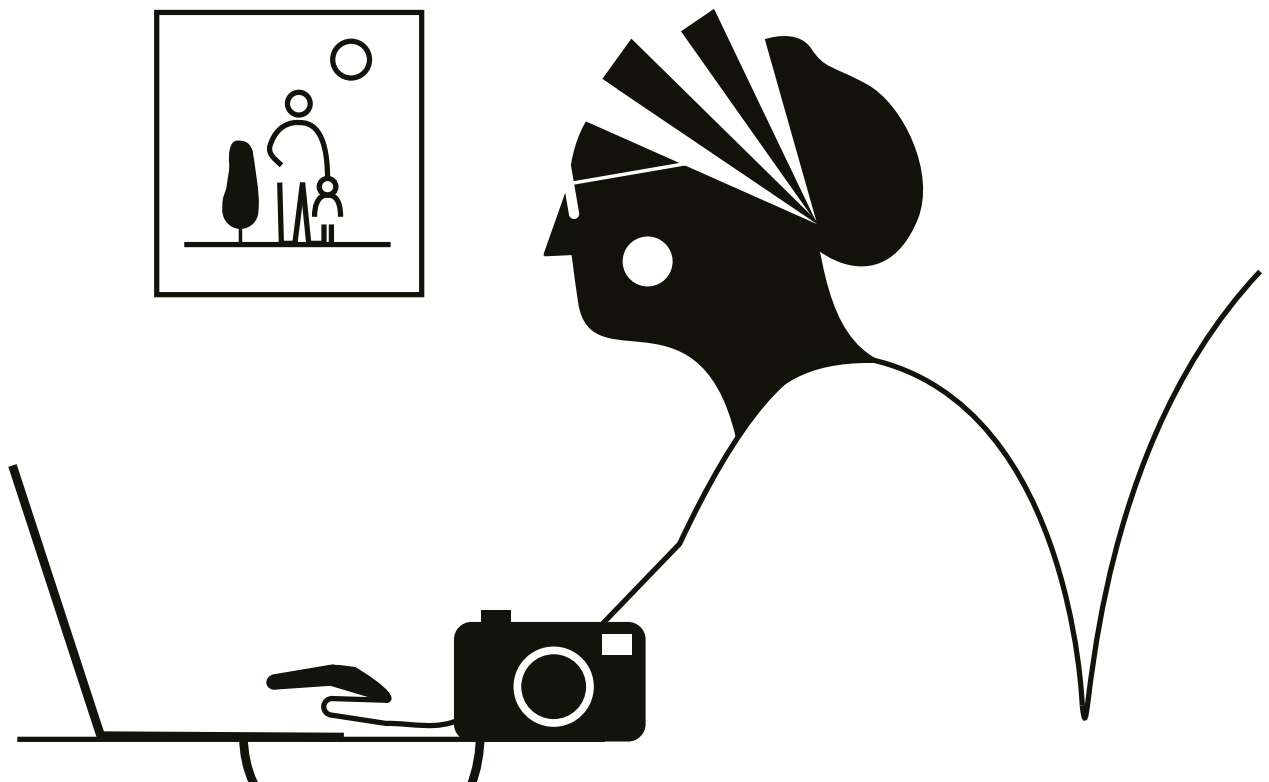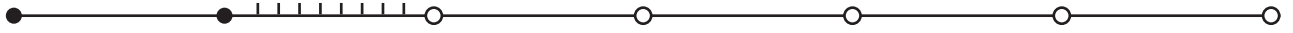
Step 8

Insights & Common Themes

Each evening the team should share their experiences from the
day as a group. Allow each individual to share his/her experience
in the field. When a person is sharing their opinion, others should listen,
and write down any thoughts, observations or insights down
on post-it notes. Interrupt the person talking as little as possible.

There is no right/wrong opinion or idea.

1 Each person shares their experience in the field:

> **Who you met**

> **Memorable quote**

> **Most surprising**

> **What is important to the person**

2 Make notes of commonalities
**Are there any common trends that you notice
across respondents based on the group's feedback?
Are there any outliers?**

3 Identify topics for further investigation
What topics came up that need to be investigated further?

Chapter 3
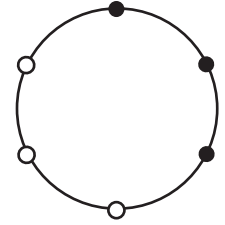
Unite
Experience

Understand

Create
Test
Launch

We need to take all the information we have
gathered so far and make sense of it.
Our goal is to identify the most important needs
of the people we are designing for.

↘ **The Steps You Will Follow**

1 **Organise the Data**

2 **Storytelling**

3 **Create Visual Profiles**

4 **Pattern Recognition**

5 **Create Personas**

6 **Refine Your Design Challenge**

Step 1

Organise your data

Organise the data you collected during fieldwork into a usable format. Make sure you have all the information and references at hand.

> **Photos**
> Order all photos into a folder for each respondent within relevant parent folders. Save images in a logical fashion, by date and respondent's name or initials.

> **Transcripts**
> Transcribe audio recordings of interviews if deemed necessary.

> **Field notes and drawings**
> Label all notes and drawings with relevant data such as location, respondent, etc.

> **Results from field activities (e.g. card sorting)**
> Make notes of each respondent's choices and capture key quotes and memorable moments.

Note to Facilitator
Contact all of your key stakeholders to arrange a pattern recognition workshop to share information from the field. The next steps of this 'Understand' phase can be done in a one day workshop, but ideally over a 2 to 4 day period, depending on availability, budget and other possible constraints.
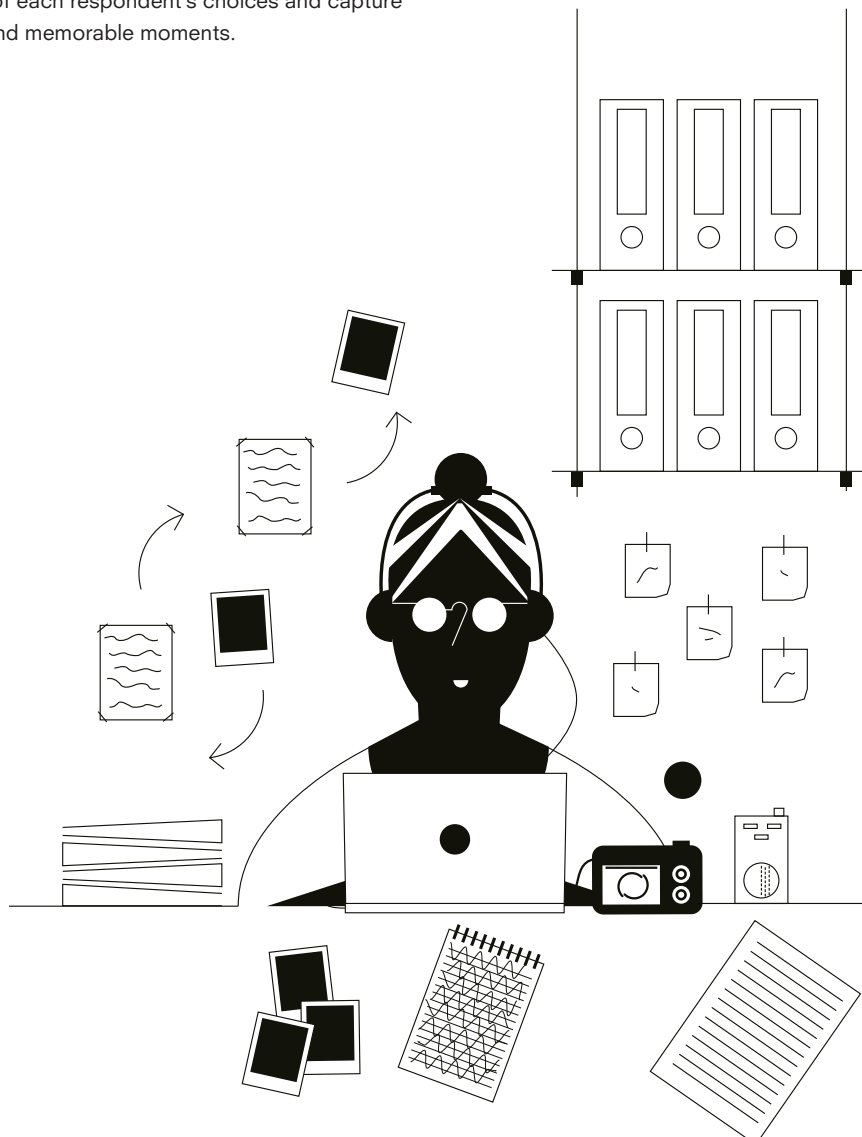
Step 2

Storytelling

Recount the stories of the people you met and the experiences you had. Your team should take turns to tell the stories of each respondent one by one.

> Ideally the person who spoke to them should share the story, using the notes they took in the field.

> Everyone else should listen and take notes of anything that stands out to them. These notes will be useful when recognising patterns and themes.

> Each person should listen actively, using a pen and paper. Avoid having laptops and phones in the room.

> Mark each post it in the top right corners with the name or initial of the respondent to whom it relates.

Note to Facilitator

Note-taking style:
Each person listening to the story should write down notable information that stands out in the storytelling on post-it notes. Write only one piece of information on an individual post-it. You will use these notes in the next step.

Step 3

Visual Profiles

Represent each person you interviewed
by compiling the information you gathered
in the field and combining it with the photographs
and the notes you took during storytelling.

➤ Prepare a visual profile of each respondent using big sheets of
paper, post-it notes from the storytelling exercise and photographs.

➤ Use data collected in the Profile Template, which you used to
capture key findings after the interviews (Step 7 in Experience)
to write each piece of information on an individual post-it. Ideally
use one colour post-it per profile to make future activities easier.

➤ You now have a detailed storyboard for each respondent, which
we will now use in the next steps to try and identify common
themes.

Step 4

Pattern Recognition (Timing: 2 - 3hrs)

With the visual profiles as reference in the room,
it's time to connect to these people and their stories.

> Surround yourselves with the visual profiles. Allow about 30 minutes for everyone to walk around silently and read the profiles, in their own time. It is important to let each person process the information in his/her own way.

> As you go around the room, start writing down the things that are similar and different between the profiles. You are trying to find a logical way to cluster the profiles into 4 - 6 groups of individuals with similar traits and behaviours.

> Once you have done this exercise individually, hold a discussion as a group about the differences and similarities, and identify the obvious groupings and themes that emerge related to your initial design challenge.

> Refer to the Tools & Resources section for practical ways to group identities.

Quote

"There are three Africa's. The one we see every day. The one they write about. And the real magical Africa we don't see unfolding through all the difficulties of our time, like a quiet miracle."

–
Ben Okri

Step 5

Create Personas   (Timing: 1 - 1.5hrs)

Create semi-fictional characters (archetypes)
that embody the people you spoke to. Personas help you move
away from behaviour related to respondents and to focus on the
important characteristics of similar groups of individuals.

❯ As a team, select a way of grouping your profiles. You may use methods such as
Grids or Pathways – refer to Tools & Resources section.

❯ Decide on a way of naming each group. The whole team should be satisfied with
the names you end up with, because its these groups on which you will base the
personas.

❯ For each group, describe a fictional archetypal character, based on the aggregated
information from the profiles in each group.
Use the Persona's Template included in the Tools & Resources section to help you
describe each persona. Describe this person's likes, habits, preferences, aspirations,
social habits and skills by writing sentences in the first person. "I am/ I like/ I prefer/ I
enjoy". An individual or pair can work on each persona.

❯ Once you have created all the personas, take turns to present each persona back to
the group, speaking in first person. Now, as a group you need to decide which ones
you will be designing a solution for.

❯ You need to construct need statements and
include these to the persona profiles you selected.

❯ Write key needs or issues from the point
of view of the user, in the first person -
 "I need..."

❯ Write many needs for each persona,
and then, as a group select 3 for
each profile.
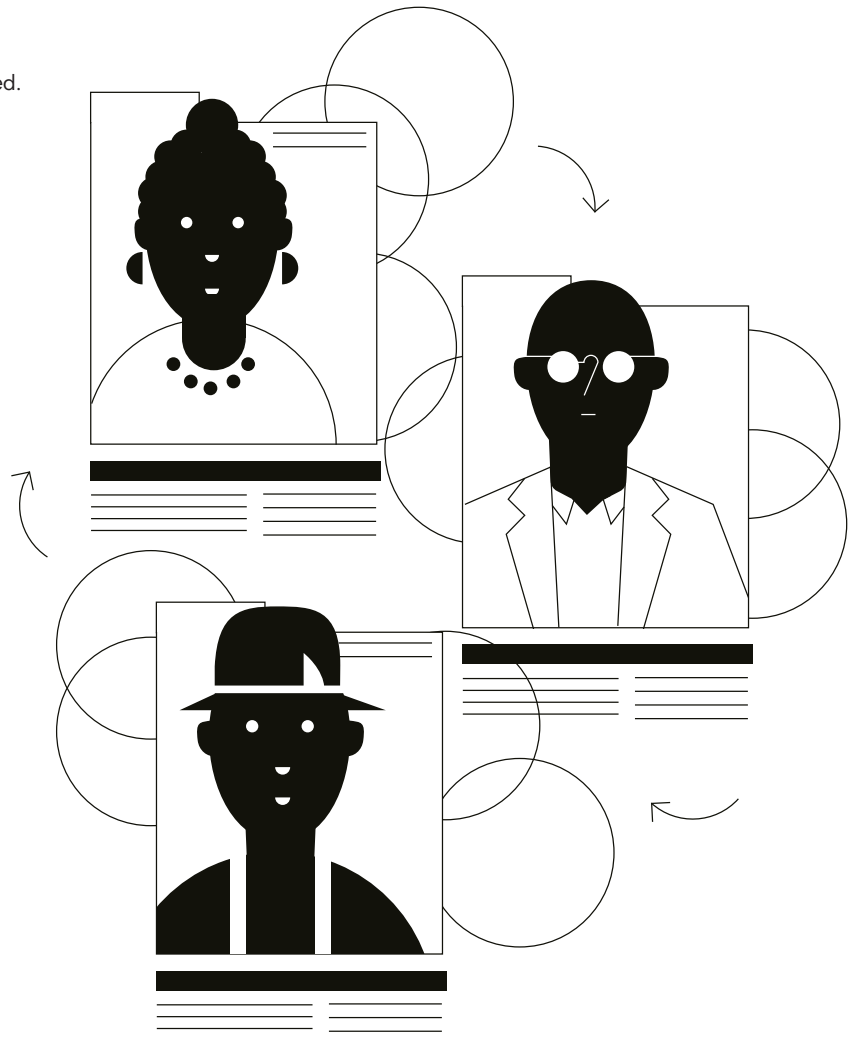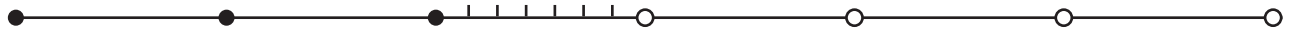
Step 6

Refining your design challenge: (Timing: 1 - 2hrs)

To refine your initial design brief, we need to turn each need statement into a challenge. We do this by expressing them as "How might we" (HMW) -statements.

In groups, take each need statement and replace it as a HMW. Write this on a card or in the middle of a large piece of paper. This will be used to inform the brainstorming session that's coming up next.

For example, a need statement may be: "You need lighting in my house in order to cook and teach my children." This may translate into a HMW as follows: "How might we provide affordable lighting to small households which do not have access to electricity?"

There should be one HMW for each need statement.
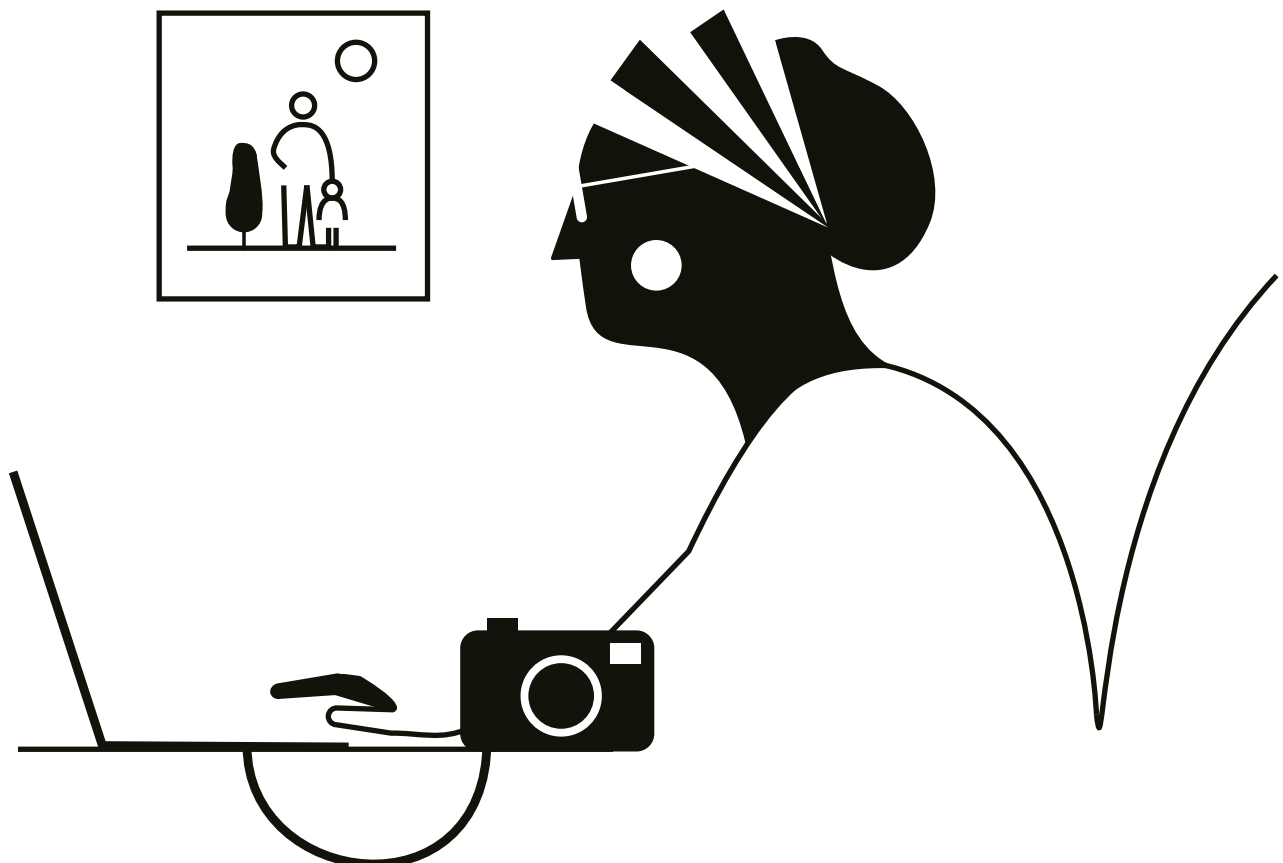
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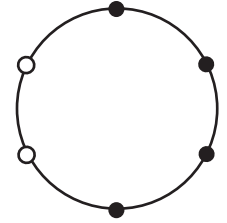
Unite
Experience
Understand

Create

Test
Launch

Now it's time to let our research and data synthesis inform new ideas of viable solutions in response to the need statements. This creative process requires open minds for constructive ideation.

↘ **The Steps You Will Follow**

1 **Visioning**

2 **Brainstorm Solutions**

3 **Evaluate Solutions**

4 **Articulate Solutions**

5 **Refine Solutions**

Step 1

Visioning (Timing: 1 - 2hrs)

Imagine the impact you want to have
by addressing a particular challenge.
Imagine what the communities will look like,
and how your personas will feel.

Ask yourselves these critical questions:

❯ **What legacy do you want to leave?**

❯ **How do you imagine communities transformed?**

❯ **What are the good things, the assets, within the communities you visited that you want to grow?**

Discuss these amongst your team and take the
Stakeholder Map, developed in stage 1 of this
HCD process, as well as the personas and
people met into careful consideration.

Note to Facilitator
A favorite activity to support this visioning exercise is to get everyone to write a newspaper headline to sum up the desired outcome of your process. It will set your team's sights on the big picture, without getting lost in the detail at this point.
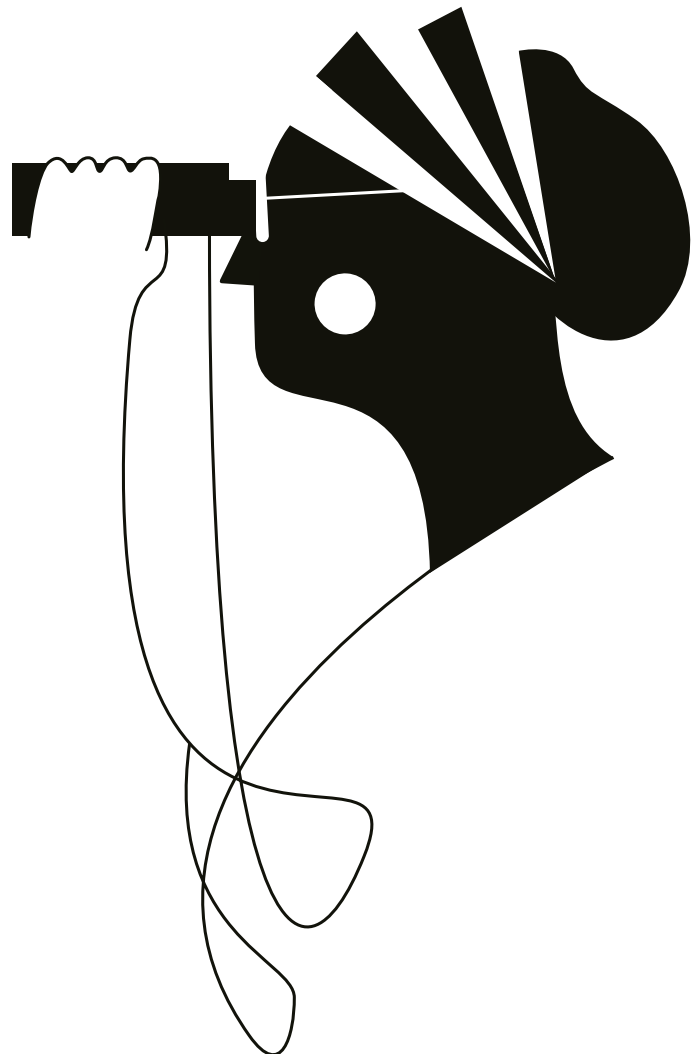
Step 2

Brainstorm solutions (Timing: 1 -2hrs)

Go through a structured brainstorming process
to come up with ideas for solutions based on
insights and observations.

Know your challenge:

Write your innovation challenge clearly in the middle of a page.
Frame the challenge with 'How might we…?"

Start off silent:
Everyone in the group should think of solutions on their own.

Share:
After a period of about 5 – 10minutes, the group shares their ideas.
Allow everyone to share ideas without interruption. (Listeners should write
comments and questions down to remind themselves later). One person
should capture everyone's ideas on a board.

Look at themes:
What ideas are similar? Group similar ideas.

Start building ideas:
Go over each idea again and start building on ideas. The group can
comment on ideas by saying "Yes, and…" Remember, no criticism and
negative comments.

Document:
Remember to keep writing down all of the group's ideas.

Note to Facilitator

Brainstorming Rules

One conversation at a time.

Listen to everyone's ideas.

Aim for as many ideas as possible

No idea is a bad idea;

No judgement or criticism
allowed at this stage

Say "Yes and" not "Yes but".

Build on the ideas of others,
instead of blocking them.

Encourage wild ideas
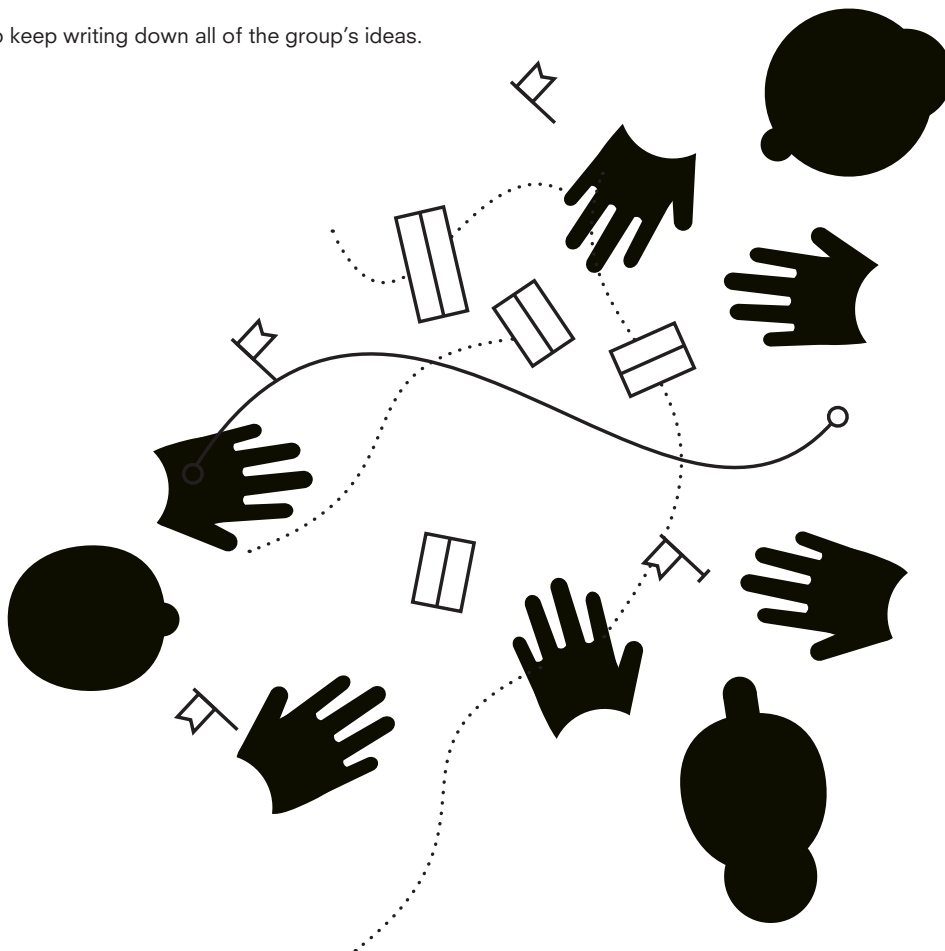
Step 3

Evaluate Solutions   (Timing: 1hr)

You will have come up with good ideas, bad ideas, impossible ideas and wild ideas - now is the time to start choosing which are the right ideas. Evaluate the ideas you came up with and decide which to develop further.

1 **Assess your ideas, by asking the following critical questions:**

> Impact: How well does this solve the end-users' need?

> Viability: How well are we able to implement this idea within our given time and resources?

> Any other criteria that is relevant to your challenge

2 **Select the top 2-5 ideas you want to refine further.**
You can rank each idea 1-10 for each of the above criteria to help decide. Or, you can vote by giving each person 5 dots or star stickers to distribute amongst their top choices.
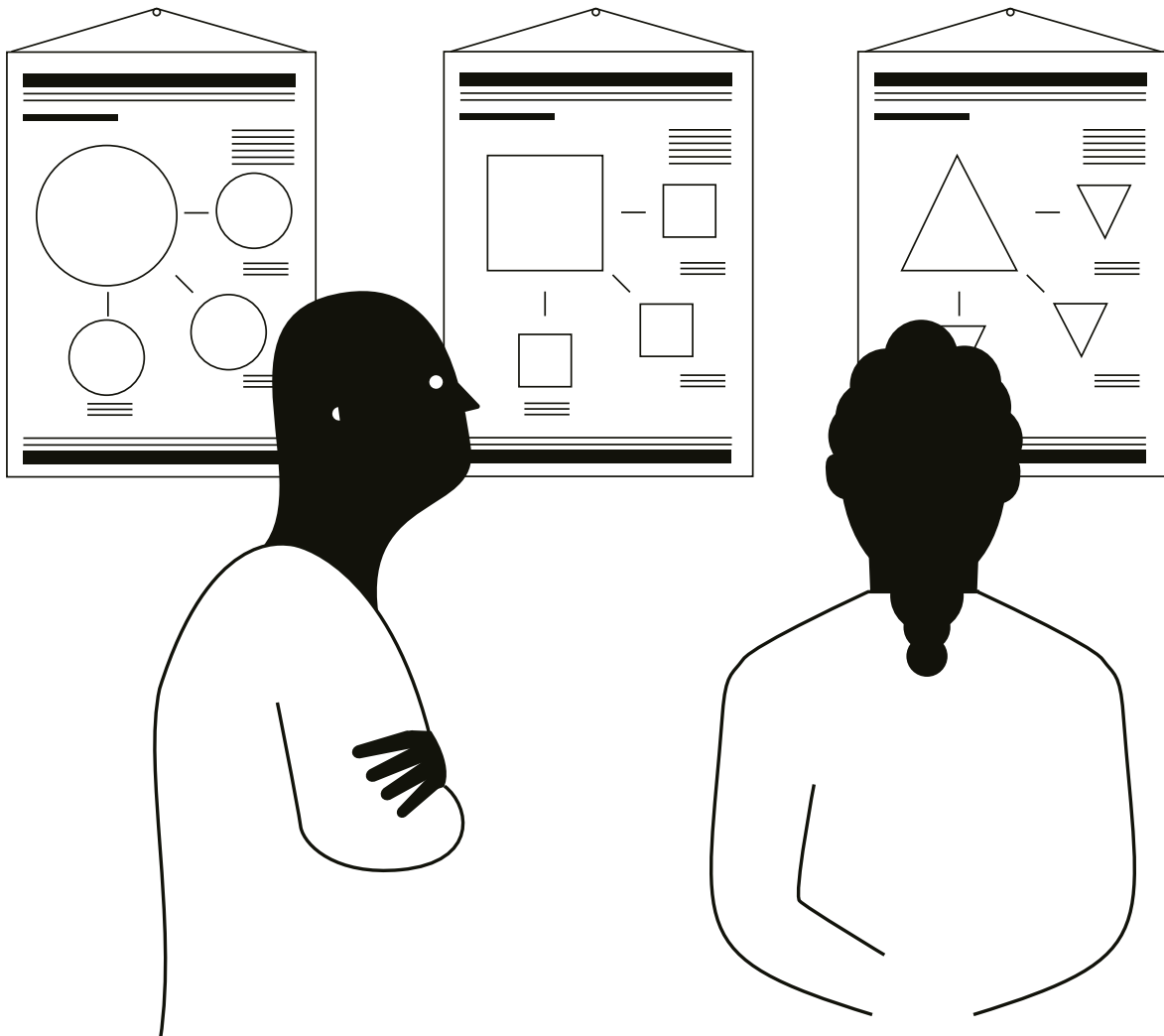
4

Create

Step 4

Articulate Solutions   (Timing: 1 - 2hrs)

Articulate your idea concisely. To achieve this,
consider the critical questions listed below in framing
your solution. At this stage you may also choose to
develop visual representations of your concept and
how you see it working.

> **What is the problem you are addressing?**
> **Who has this problem?**
> **How does this solution solve the problem for this person?**
> **How are you uniquely positioned to address this problem?**

Write clear and to the point responses to each of these questions.

Once you have these basics, consider the practical design of your
concepts. Compile design drawings and visual elements to best
represent your idea. You will expand on these in the next steps
when you prototype and test your concepts.

Step 5

Refine Solutions (Timing: 1 hr per concept)

Before getting to prototype and test your proposed solutions, it's important to assess the concepts, and ensure that they're suitable and responsive to your end-users' needs.

Appoint a team member to write down your group's thoughts and ideas under each of the following headings:

› **Product or Service**
   What is the product/ service? What is it called? How does it work?

› **Process**
   How do customers become aware of your product or service;
   and then how will they get to use it?

› **Place**
   How will you get this solution to the user?

› **Production**
   If this is a product, how will it be made or manufactured?
   If this is a service, how will it be created and delivered?

› **Price**
   What is the full cost to produce and distribute this product?
   What will the eventual cost be to the user?
   What would they be willing to pay for it**?**

› **Physical Evidence**
   If this is a service, what physical items are associated to the service?
   As an example, think about how a bank card represents your access to
   money in the bank...

› **Promotions**
   How will you communicate the product/service to potential customers?

› **People**
   What key staff will you need to implement this?

› **Partnerships**
   What partnerships might you need to implement effectively?

You should end up with a well defined product or service concept that can be presented back to the bigger group.
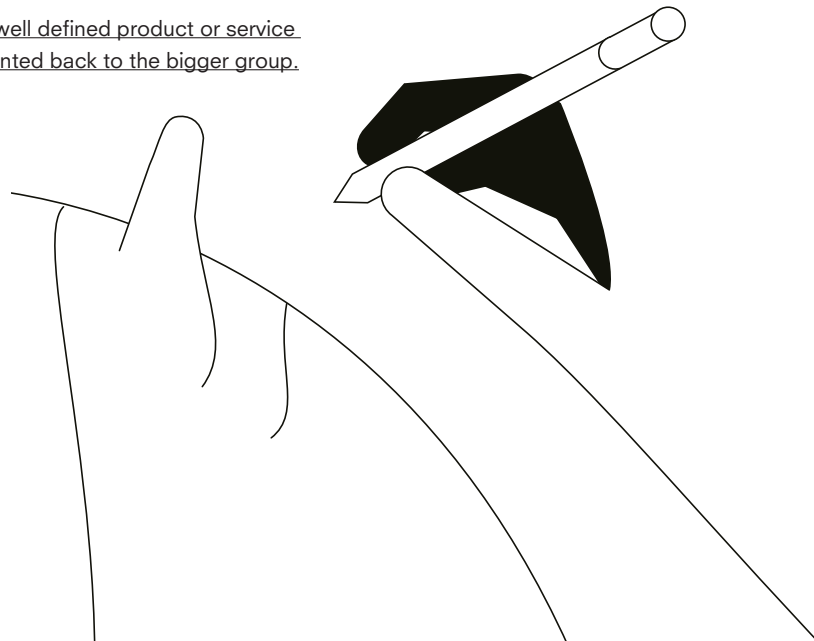
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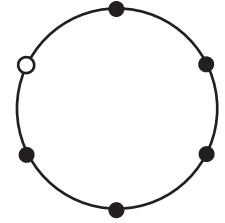
Unite
Experience
Understand
Create

Test

Launch

Before we invest lots of energy into an idea that might not work, we test the design we have come up with by creating a tangible interpretation of our design's key features. We'll allow people to use our prototype and give us important feedback about what works and what doesn't.

↘ **The Steps You Will Follow**

1 **Customer Journey Mapping**

2 **Create Rapid Prototypes of your Ideas**

3 **Document your Prototyping**

4 **Test your Prototype with Users**

Step 1

Customer Journey Mapping (Timing: 1 hr per concept)

On a big piece of paper, visualize the process that your customer will go through to gain access to your product or service. This will give you insight to their experience, and how your solution may fit into their lives.

Activity. Record how things happen over time.
For example, when people become aware, join, use,
increase usage and leave the service/ product.

Interactions with people. Record interactions between people:
on the phone, online or face to face.

Interactions with things. Record interactions with things:
posters, menus, websites, places, furniture, food.

Emotions. Describe how people felt at particular points:
Nervous, happy, disappointed, disgusted, elated.

Step 2

Create rapid prototypes of your ideas

Prototypes will allow you to explain your design in simple, but real terms. At this stage, perfection is not important. Rather focus on ways to demonstrate your design's key features and functionality. Depending on the number of concepts for prototyping and the level of detail required, decide on the amount of time available for prototyping.

Get your team into the mood by starting with the Why Prototype Activity included in Tools & Resources. This will emphasize how people tend to value design and the importance of prototyping.

> Decide on key features/aspects of your idea that you want to test Create something that people can interact with to test your idea.

> Use easily available materials where possible and keep costs and other resource input low.

Different types of rapid prototyping:

> **Critical Function Prototype:**
> If you are designing a product, this is a useful tool.
> You do not need to build your whole product. Decide what the most critical features are, and represent those in your prototype.

> **Paper Wireframe:**
> If you are creating a mobile or web-based solution, use paper to design the different pages and features of your website or ap

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Note to Facilitator

Principles of Rapid Prototyping

It's not perfect - prototypes are crude! They aren't your finished product

Don't prototype everything - Only prototype the essential parts of the thing you're trying to show.

Different prototypes emphasize different things. The more the better. You can make lots of prototypes.

Step 3

Document your prototyping

Keep a logbook that describes your learnings.
In your logbook, include the following:

Prototype Description

❯ What are you testing with this prototype?

❯ Why did you choose this kind of prototype?

❯ What features are implemented in this version of your product?

Testing Description

❯ Describe the entire test

❯ What were your observations about the ways users used your product?

❯ What were the users' comments?
Take pictures/video/ write down quotes - you want to capture your user's way of expressing their experience.

❯ What did you learn?

❯ What are you going to change about your product?
How important are each of these changes?

Rebuilding Description

❯ How did you make the changes on the prototype?

❯ Show pictures.
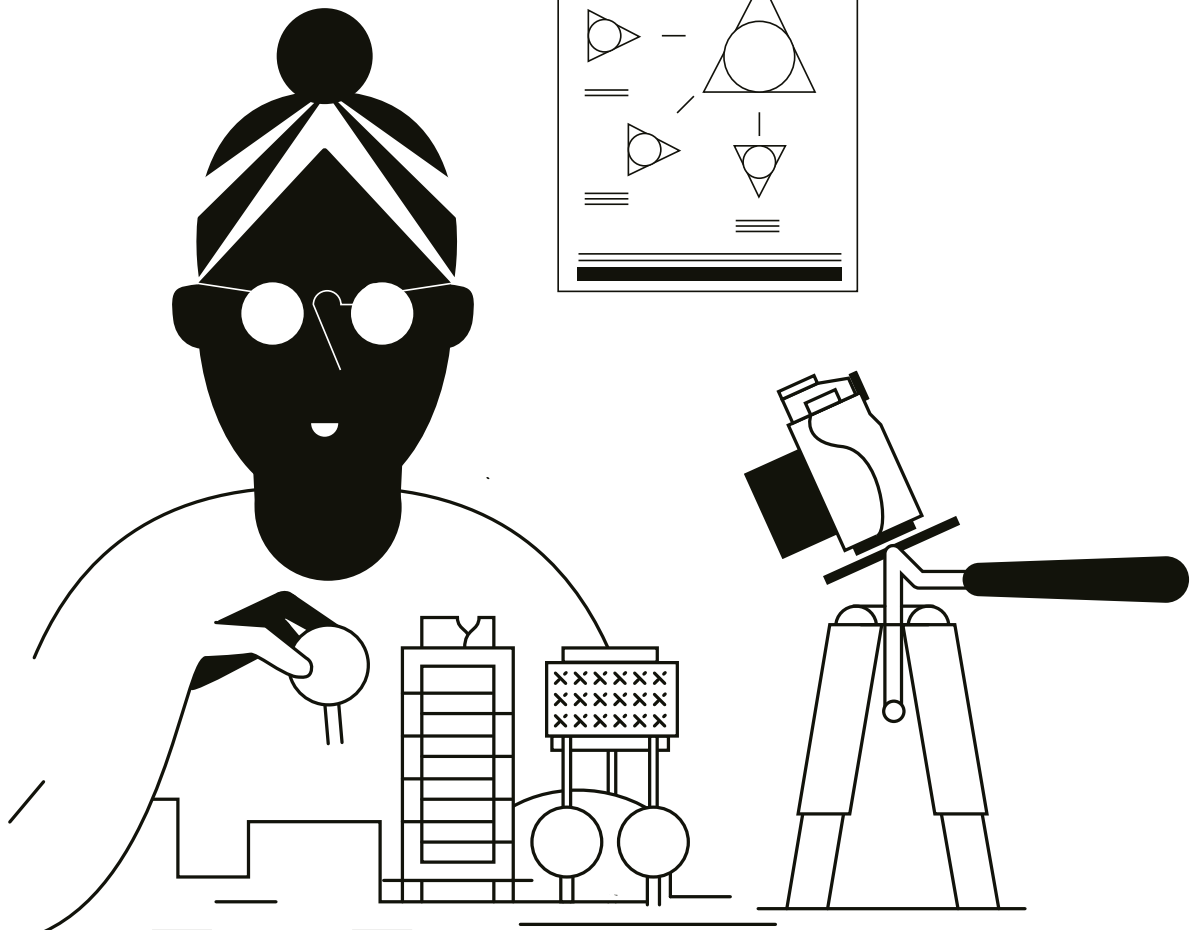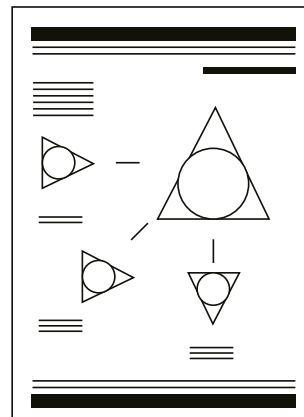
Step 4

Test your Prototypes with Users

Gain feedback from users. User feedback prevents you from investing in the wrong direction, and allows you to refine and reprioritise your ideas.

> **Decide what feedback you need to make decisions about your ideas. Search for feedback on 3 levels:**

Touch points - How do people use and interact with the solution?

Service level - How does this solution fit into users' lives?

System level - How does this fit into the larger systems around the user ?

> **Plan a session where you let users interact with the prototypes and give you feedback.**

> **Plan how you will gain feedback from users –**

see "How to get feedback" and in Tools & Resources.
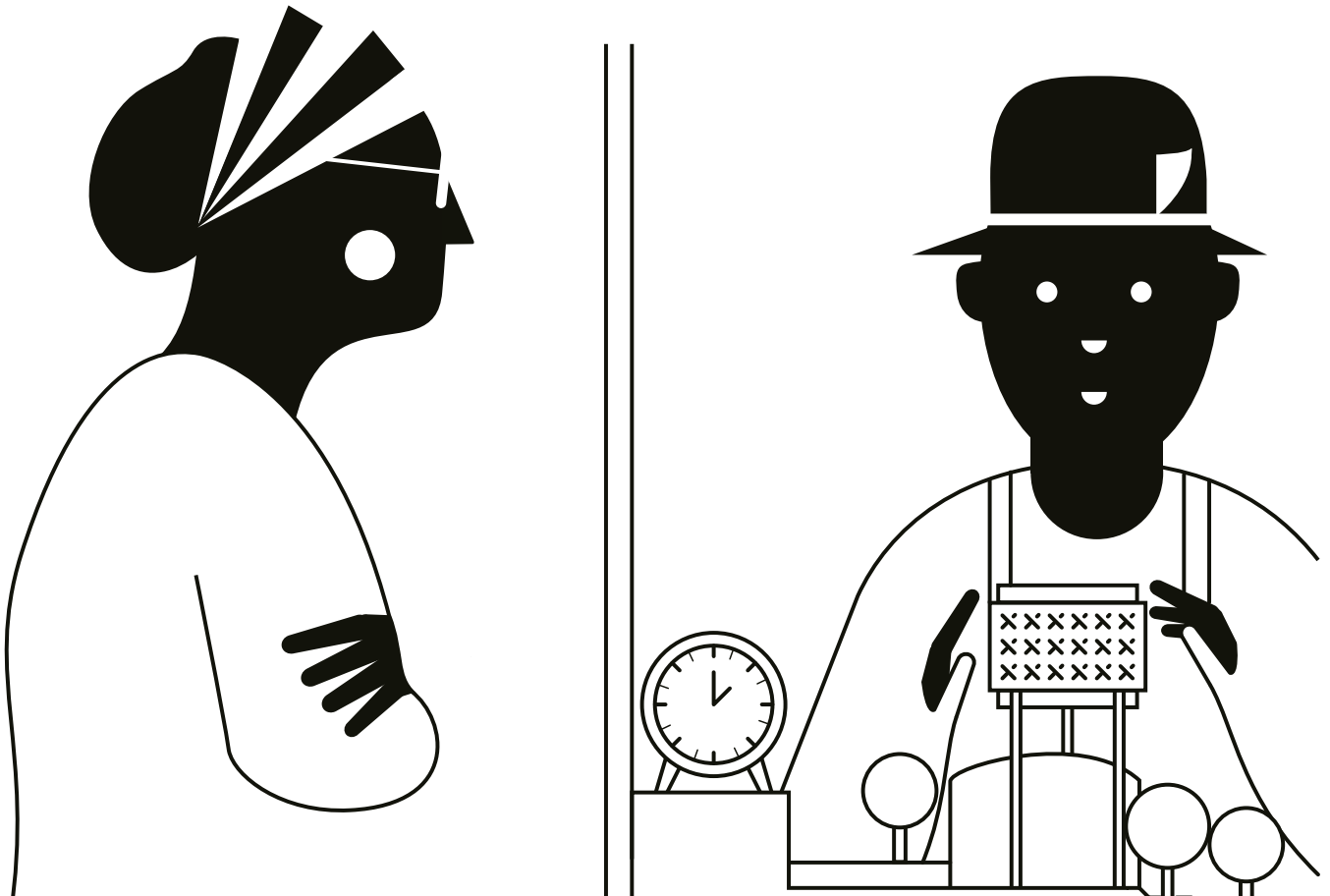
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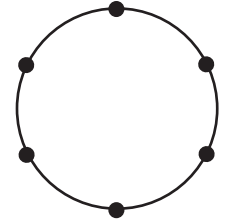
Unite
Experience
Understand
Create
Test

Launch

We need to package the solution in a way
that gives it the best chance of success and
the highest probability of being implemented.
The previous steps in the process ascertained
both the desirability of our solution and the
feasibility. The last step in the process is to
establish whether your solution is viable from
an organisational perspective.

↘ **The Steps You Will Follow**

1 **Value Proposition**

2 **Business Model Canvas**

3 **Budgeting & Financials**

4 **Preparing the Pitch Deck**

5 **Designing Your Launch Strategy**

Step 1

Value Proposition   (Timing: 1 hr per concept)

Another tool we can use to define the concept is the Value Proposition Canvas. This is a tool that measures the fit between what customers desire and the product or service that you are offering. It is useful in circumstances when you can identify specific jobs to be done for the customers.

You may use the formal template included in Tools & Resources, or manually draw a worksheet on a whiteboard under the headings below. It effectively matches the customer segment that you intend to create value for with the value proposition that you believe will attract them. The Value Proposition Canvas begins with a Customer View by defining your intended customer segment according to three criteria.

> **Job to be done - What is the job to be done for them?**
> This is a list of the tasks that they are trying to get done, problems that they are
> trying to solve or needs that they are trying to satisfy in their work or their lives.

> **Pains - What are their pain points?**
> This is a list of the negative aspects of their situation, including what
> annoys them, risks, costs or negative emotional aspects.

> **Gains - What would be gains for them?**
> These are possible positive outcomes and benefits for them
> that they may desire, or be surprised by.

Once we have established the Customer View, we focus on the

Product View or Value Proposition View.

> **Products or Services**
> Here we outline the bundle of products and services we are offering to get a functional,
> social or emotional job done to address the pains and gains.

> **Pain Relievers**
> Here we list how our products and services alleviate the pains
> and which ones our solutions address.

> **Gain Creators**
> Gain creators are a list of positive outcomes and benefits and how they positively assist the
> customer and which ones our solutions address.

Once we have completed the Value Proposition Template, we can ascertain how well our

product or service achieves a 'product/market' fit with our intended customer desires.

Step 2

Business Model
Canvas   (Timing: 1 - 2 hrs per concept)

It may be useful to describe a business, product or service in a more comprehensive way. A business model canvas is such a tool that effectively gives you a way of understanding the business, product or service by telling its story. This is useful when you are not sure of the actual nature of your solution and need to flesh out more practical details. You may use a template (see reference in the Tools and Resources) or manually draw a worksheet on a whiteboard under the headings below.

Value proposition
How does your business, product or service deliver value to your customers?

Customer Segment
Who does your business, product or service, provide value to? Who is the end customer?

Distribution Channels
How does your solution get these products or services to your customers and their customers?

Customer Relationships
What will you do to build relationships with your customers?

Revenue
What do you do or sell to generate revenue?

Key Activities
What are the main things that you need to do in order to deliver your products and services?

Key Resources
What key resources are needed in order to deliver your products and services?

Key Partners
Who do we need to work with in order to deliver our products or services?

Cost Structure
What are the main drivers of your costs?

By defining all of these parameters we end up with a much clearer explanation of what it is that we intend to do. This will inform our product pitch, and form a foundation on which we can implement the product or service with more certainty.
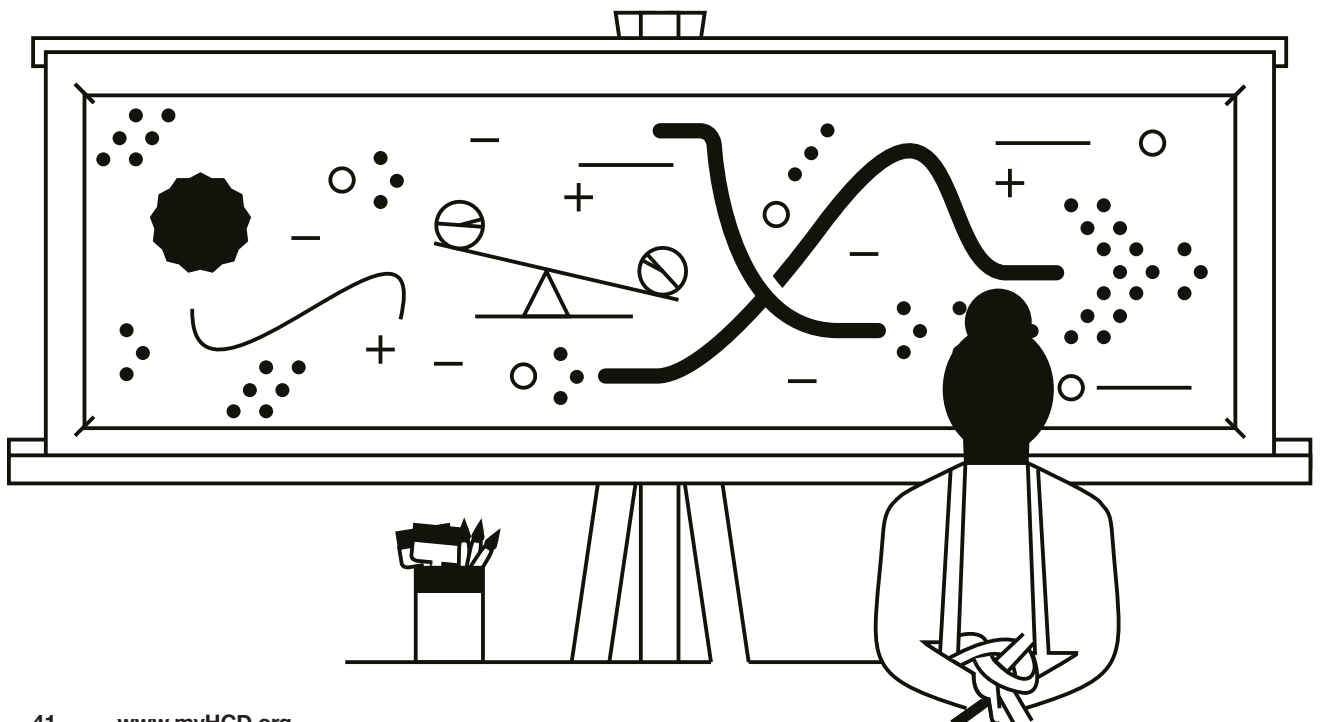
Step 3

Budgeting & Financials   (Timing: Half a day to 1 day)

In most cases there will be a financial cost of producing and marketing a solution. The team needs to prepare a financial model, as a useful way to start a conversation to get buy-in from other stakeholders.

The financial model also identifies the different levers, which affect the business model. Levers are the different variables, that affect the outcome. The financial model helps us to clarify which levers are more important than others

An example of typical levers are:

› **Price**
› **Quantity**
› **Production costs**
› **Sales volumes**
› **Salary costs**
› **Overhead costs**
› **Marketing and Promotion costs**
› **Funding needed**

It is best to create a spreadsheet to show as real an estimate as possible of how the product will perform financially if it is rolled out as intended.

This initial estimate provides you with a basis from which to test the effects of any changes in your assumptions. For example, you may forecast that your sales will be "x" number of units. Now change that to "2x" numbers of units and see what happens. What happens if you only sell "half x" units?
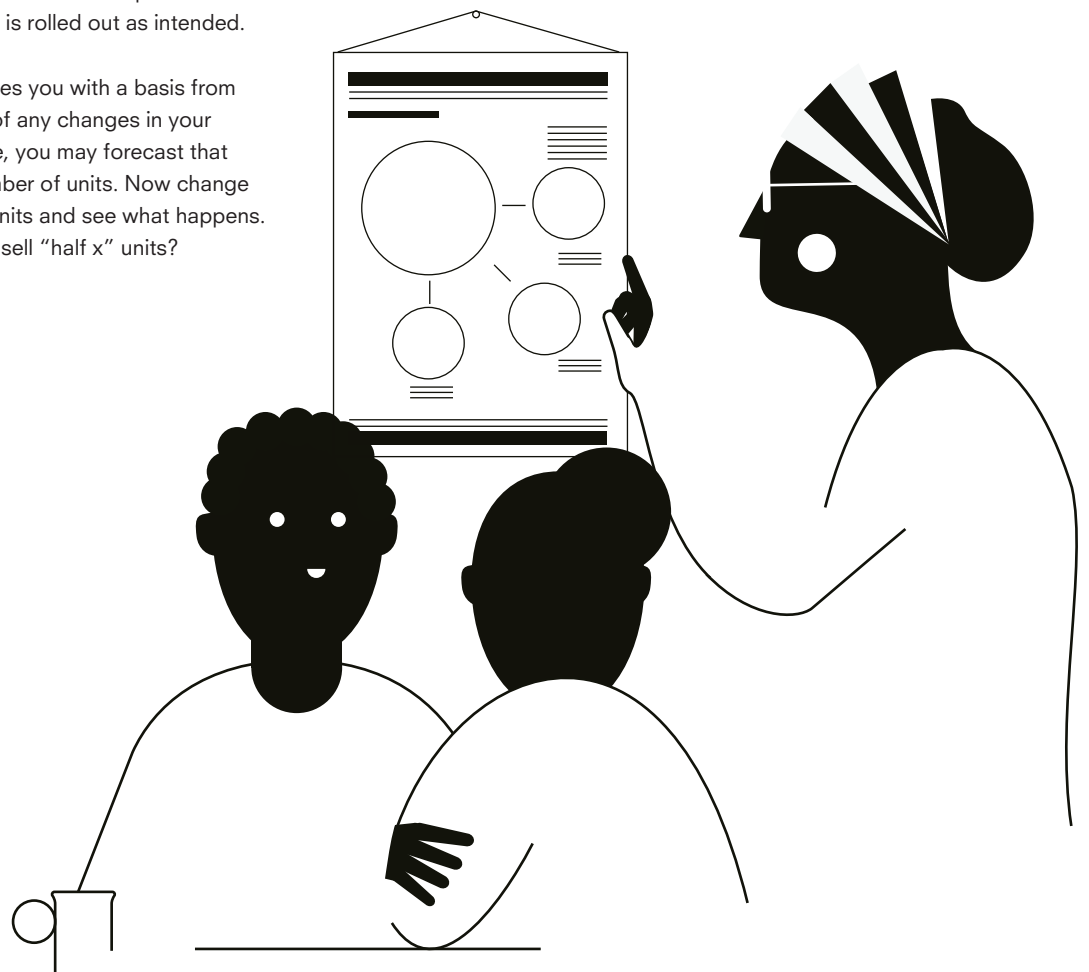
Step 4

Preparing the Pitch Deck (Timing: 1 - 2 hours per deck)

In many circumstances, a new business, product or service needs to be pitched to superiors or an approval committee for a 'go-ahead' or funding. Sometimes there may also be a need to pitch to potential partners and collaborators in order to get their buy-in and support for a project.

The Pitch Deck is the way to do this. It is a simple way of explaining a complicated product, and serves to clarify our own thinking first, before we are put under pressure during a pitch.

Quote

Not everyone who chased the zebra caught it, but he who caught it chased it.

-
South African proverb

There are 6 steps to creating the Perfect Pitch:

1 Develop a clear, one-line Problem Statement and test it with 5 Why's to see if you have addresses the root cause of the problem

2 Explain why it is needed now and why are you the right team to deliver it.

3 Show the 'promised land' and then explain how to get there.

4 Identify obstacles and then explain how you will overcome them.

5 Present evidence that this is the right solution.

6 Define Roles and Responsibilities, and the timing.

In some circumstances, where pitching to a more formal audience, you may wish to create a more comprehensive document which provides clarity under the following headings.

> **The Problem**
> **Your Vision**
> **A description of the Product / Service**
> **Market Opportunity**
> **How it has been Validated by testing**
> **Revenue Model**
> **Marketing & Growth Strategy**
> **Competition**
> **The Team and roles and responsibilities**
> **Time frames for development and implementation**

Step 5

Designing your Launch Strategy

From the beginning, we need to build our solutions with the intention of making sure that they have the greatest chance of a successful implementation.

New products or services should be launched down the path of least resistance.

This means that you should consider the resources you already have easy access to. I you have an existing product development, manufacturing or marketing team in your organization, it makes sense to involve these in your process, rather than trying to find new, skilled service providers.

You also need to ensure that you involve all the right people from these departments in your process from an early stage so that they can help to make the new product or service a resounding success.
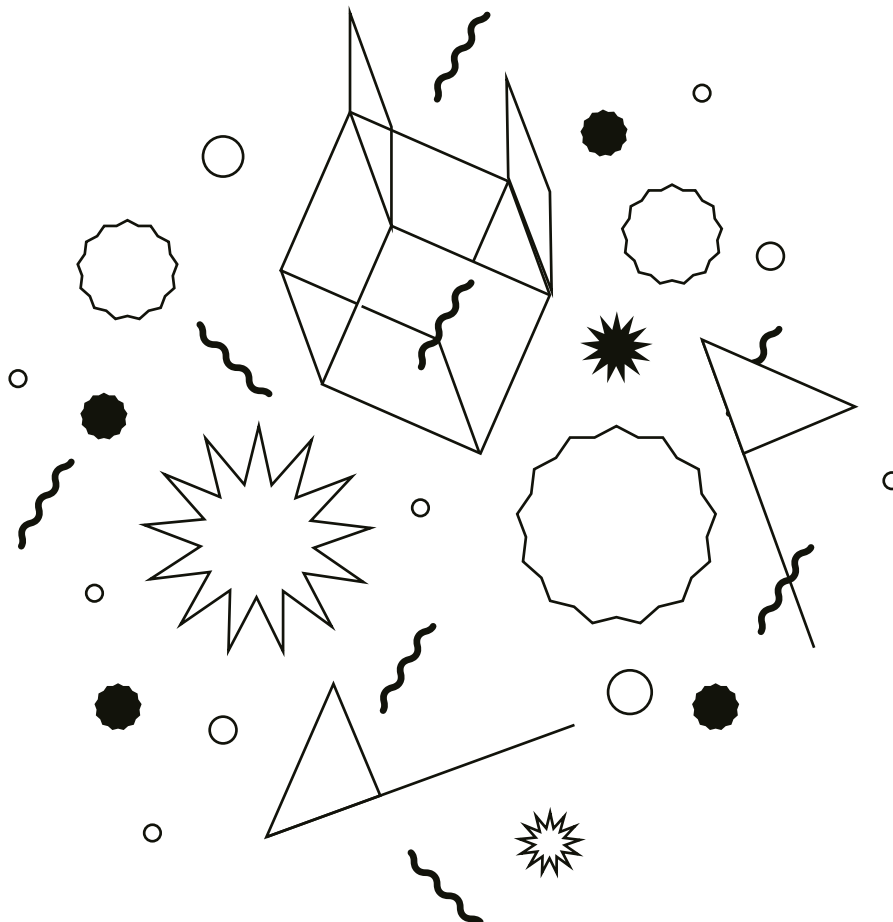
Conclusion

"If you can talk, you can sing.
       If you can walk, you can dance."
– Zimbabwean proverb

By now, you've gone through quite a journey to design and prepare your product for the market. Well done, and thank you for choosing an empathetic approach to co-create a better life with respect to people and place.

We trust that this HCD Africa Toolkit has been a useful companion in deepening your understanding of the people you're designing for, enabling you to refine your product or service's desirability. In creating and testing your design, while listening carefully to feedback and user responses to your prototypes, you've been able to prove its feasibility. In successfully launching your design, through pitching and partnerships, you have a strong case for its viability.

We hope that the spirit of Ubuntu, so central to this HCD process, has inspired your creativity in working together with others, and that it has revealed a rich tapestry of life to inform your work.

If you've gone through this process to the best of your ability and, for whatever reason, it's not delivered the desired results, you can step right back in to any stage of this HCD process.

Design is a reiterative practice. Every development, with the new knowledge it embodies, is progress – especially when these developments position people at the centre.

We encourage you to keep applying HCD to your work, maintaining an open state of mind and keeping attuned to people and the consistency of change. We wish you all the best in your endeavors to bring about meaningful impact.

Thanks for choosing to work with us.

You HCD Team.

Tools +
Resources

Tools & Resources

In this section of your HCD Africa Toolkit, the notes describe various exercises and activities, and include useful guidelines and templates that have been referred to throughout the process.

> **The Human Rainbow**
> **Interview Guide Layout**
> **Interview Styles**
> **Card Sorting**
> **Grids & Pathways**

> **Personas Template**
> **Six Thinking Hats**
> **Activity: Why Prototype**
> **Value Proposition Template**
> **Business Model Canvas**

The Human Rainbow

WHEN?
Before or after Perspectives

WHY?
This exercise helps the team understand the broad variety of opinions that different people have. By delving into statements about the problem, the team can start to uncover established ideas and opinions held by team members.

HOW?

1 The facilitator illustrates a line (either imaginary or marked on the floor with tape), with one end representing strong agreement and the other end representing strong disagreement. The facilitator makes a statement (eg. "I prefer being in the mountains to being near the ocean".)

2 Participants must position themselves along the line showing their degree of agreement. You need to observe not only where people end up, but how they moved there and how quickly they moved (i.e. how certain they were), and their body language.

3 Once everyone has chosen a position, the facilitator can question certain people on their position to identify underlying reasons.

4 You should take note of team members opinions. Use dots for their position and speech bubbles for reasons. It is not necessary to capture all information, but just key insights.

What statements to pose?

Statements should start out as fairly easy to get people warmed up and get progressively more controversial and nuanced.

EXAMPLES OF STATEMENTS:

→ Life in rural areas is much harder than in cities
→ A farmer needs many children to lighten his work load.
→ Women have power to influence buying decisions in the house.
→ Hard work is futile in the face of destiny/luck.
→ Banks are the best means of providing physical safety for money.

REFLECT ON THE LEARNINGS FROM THIS ACTIVITY BY ANSWERING THE FOLLOWING QUESTIONS:

→ Where are our ideas similar?
→ Where are our ideas most different?
→ What was surprising to find out?
→ Did this exercise help you identify assumptions or preconceived ideas you have / members of your team have?

Guide to Interviews

→ Before you start:
- Assure people that you want to know what they think and what their opinions are, that there is no right or wrong answer

- Tell them why you are doing research. Informants might have experience with NGO grants and handouts, so make sure to explain that they should not expect to receive anything. This will hopefully prevent them giving particular answers in the hope of receiving something.

- Explain how their input is valuable and that you are interested in their opinions.

- Explain how you will record the interview and ensure they are comfortable.

- Explain the research and how all the data will be used. It is important to let people know that their information will be used with utmost confidentiality.

- Obtain written consent where deemed necessary.

  Also, obtain the consent of local leaders or elders where necessary.

→ **Basic Information:**
- Goal: Allow the respondent to become comfortable answering basic questions; uncover basic information about the respondent.
- Use this section of the interview to let the respondent start feeling comfortable and to develop a natural conversation. You can cover this basic information in the style of a casual conversation. Avoid an overly formal interview style.

→ **Attitudes and Behaviours**
- Goal: Uncover habits, routines, key time points.
- Discover motivations and frustrations surrounding these.

→ **Resources & Enablers; Aspirations; Challenges & Hindrances:**
- Goal: Investigate what enables the person's success; find out what they aspire to; identify what is preventing them reaching these aspirations
- Fieldworker notes: Focus on the positive aspects first, and then move to challenges and problems. Try and avoid a situation where the person is listing complaints.

→ **Beliefs and Values**
- Goal: Investigate what the driving values of the person are.
- Fieldworker notes: You can ask them about what life motto they believe in or what advice they would give to others.

→ **Social Circles**
- Goal: Define social/business/ other circles the respondent is involved in.
- Guiding Questions:
  If you needed to ask advice about X, who would you ask?
  If you found out something brilliant, who would you want to share this with? Who were the last people you contacted by phone/sms?

→ **Information Sources**
- Goal: How does the person learn of new things? Who/what do they consider credible?
- Questions: How did you find out about X? How did you learn to do Y? Who told you about Z?
- Fieldworker notes: Try and establish any particular opinions or beliefs that they have and investigate how they came to those opinions or beliefs

→ **At the end**
  Thank the person for their time, and repeat why their opinion in valuable to you. You might offer a small gift in exchange for their time. You should make it clear that this is a thank you gift and not a payment.

> **Always be on the look-out for contradictions. However, when enquiring further into these, be gentle, and avoid giving the respondent the feeling that you are testing them.**

Interview Guide

NAME:

AGE   GENDER

LOCATION

JOB / ACTIVITY / POSITION

WARM UP QUESTION

INTERESTING STORY:

MAIN INTERVIEW QUESTIONS

1

2

3

4

5

6

7

OBSERVATIONS

SUPRISING COMMENT	CONTRADICTIONS	MOTIVATIONS / ASPIRATIONS

Interview Styles

Informal Interviewing:

→ Put aside any ideas and expertise you might have, and listen with an open, fresh mind to the wisdom of the people you interview. Try not to make assumptions as to whether anything is 'good' or 'bad'.

→ Your questions should not be biased towards your own ideas, but should openly investigate the lives of the people you are designing for.

→ It can be very difficult to stay in this mindset. At critical times such as during Fieldwork assign a particular person the role of watching for others slipping out of Beginner's Mind. Assign a particular word/gesture that they use to raise awareness.

→ Look for Inconsistencies: Sometimes what people say and what they do are different. These inconsistencies often hide interesting insights

Digging Deeper

→ Probing is a vital interview technique. Probing is pushing the respondent for more inform-ation without intruding too much and affecting their flow of thought. Probes should always be open-ended questions.

Example: "Have you ever sold produce outside the village?""Yes" "Like where?" Oh many places around here." "Can you name a few?"

→ **Your most important probing question is 'Why?'**
Even when you think you know the answer, ask people why they do or say things. The answers will sometimes surprise you.

→ The silent probe:
To encourage a respondent to keep speaking, keep silent just long enough. You could nod and encourage them with a positive 'uh-huh' so they feel you are happy with what they are saying.

→ The echo probe:
A useful way to encourage a person to keep talking about a particular topic is to repeat what they said and ask 'and then what?' or 'and what else happens?' etc.
Example: "I see. You buy seeds, and pesticide and shade-cloth. What else?" or "I understand. At the end of the day you pack things away and close up. Then what do you do?"

Its Not About You!

→ As an interviewer, do not interject your own opinion.
Your role is to be as neutral as possible, only encouraging the respondent to speak about certain topics.

→ The interviewer's role is to get the respondent onto a particular topic and then 'get out the way'. Let the respondent tell you what they want to tell you about that topic.

→ Ask Neutral Questions.
"What do you think about buying gifts for your colleagues?" is a better question than: "Don't you think shopping is great?" because the first questions doesn't imply that there's a right answer.

→ Never say 'usually' when asking a question. Instead, ask about a specific instance, such as "Tell me about the last time you____"

→ As an interviewer, be aware that some people take a while to respond. Let a respondent think and take their time before adding more words. Don't be afraid of silence. Give people time to reflect and they may reveal something deeper

Card Sorting

<u>WHEN</u>**?**
Plan and design this activity when you're creating your Interview Guide.
You will put this to use when interviewing respondents.

<u>WHY</u>**?**
In order To open up deeper conversations in an interview setting
and to see how a person ranks certain concepts against others.

<u>HOW</u>**?**
You will do this by creating a deck of cards which visually depict the various choices
that a person may have in any give set of circumstances.

To make the cards, simply use cardboard, with images of objects related to your research
that you'd like to show people. Images can be hand-drawn, cut from magazines or
photographs glued to your cards.

**<u>You will ask respondents to choose between them, or rank the various choices
according to the relevant criteria.</u>**

**1 Show a person a certain
category of objects, for example:**
→ Foods/ Financing Options/
Agricultural Practices.

**2 Ask them to make an initial
selection: For example:**
→ Select 3-5 top/bottom options.
→ Which 5 of these foods are
essential for a healthy day?
→ To become healthier, which three
foods would you stop eating?
Which are the 5 most important
cooking utensils for you?

3 Enquire about this choice
→ Why?

**4 From there you can ask them
to choose the most important /
least important to explore their
preferences further. Why?**
→ If you could recommend just one of
these cooking utensils, what would
it be?

5 Explore the edges:
→ If you could add more or if you had
to give one away? Why?
→ If you could choose one more what
would it be?

Hotspot!

Note: The purpose is to open
up conversation in a new way.
The important thing is to keep
asking 'why?' Make sure that the
respondent knows that there is no
right or wrong answer

Grids & Pathways

<u>WHEN</u>**?**
You would use these methods when creating personas.

<u>WHY</u>**?**
The crux of the HCD process is to take a large quantity of unrelated facts, observations and data and to interpret these in a way to identify common patterns, behaviours and habits from our target group. This will then inform their real needs wants and needs which we're aiming to address.

T<u>he process of narrowing down all of this diverse information can done
using the following tools:</u>
Using Grids To Group Personas:

Discuss within your group what different continuums you could use to describe all of your respondents.
These could be: poor / rich; not successful / successful; low rainfall / high rainfall; single income / multiple income, etc.
Find the two continuum with the best fit and plot them on a 'two by two' matrix.

1 Jot a list of key characteristics to group the profiles by.

For example:
→ **Levels of Entrepreneurship**
→ **Success of the farm**
→ **Continuing farming / abandoning farming**
For each characteristic, write it as two polarities.

2 For example:

→ **Non-entrepreneurial /** Entrepreneurial
→ **Non-successful farm /** Successful farm
→ **Abandoned farming /** Continuing farming

(Note: Always put the 'positive' side at the top or right of the axis.)

3 If you find one grid that works well to describe the different groups of people, you can use this to base your personas on.

EXAMPLE OF A GRID
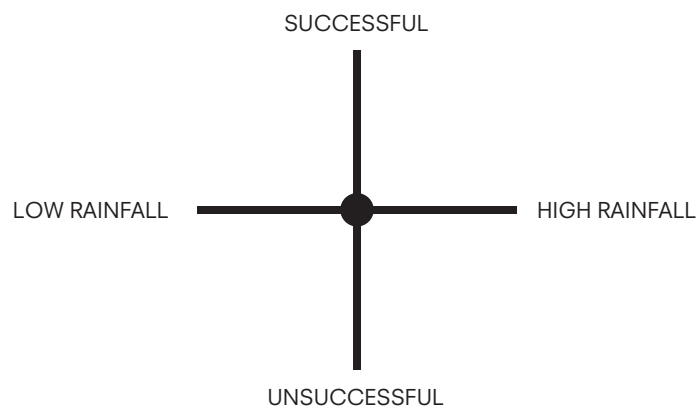
SUCCESSFUL

LOW RAINFALL ———————●——————— HIGH RAINFALL

UNSUCCESSFUL

Grids & Pathways

<u>WHEN</u>**?**

You would use these methods when creating personas.

<u>WHY</u>**?**

The crux of the HCD process is to take a large quantity of unrelated facts, observations and data and to interpret these in a way to identify common patterns, behaviours and habits from our target group. This will then inform their real needs wants and needs which we're aiming to address.

<u>The process of narrowing down all of this diverse information can done using the following tools:</u>

<u>Pathways</u>

Another method which may suit your sample better, may be to group respondents according to Pathways.

1 **Is there any chronological order that you can use to group people?**

2 <u>For instance:</u>
→ **Beginner farmers;**
→ **Experienced farmers,**
→ **Ex – Farmers**
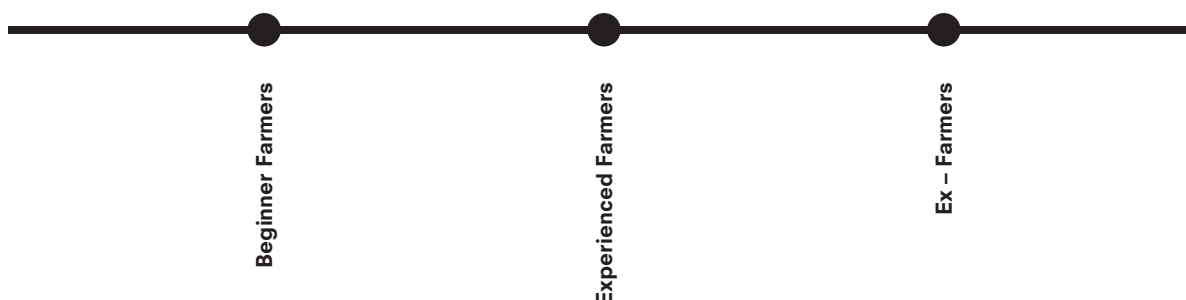OR:
→ **Early Stage**
→ **Still in Development**
→ **Established**
→ **Advanced**
OR**:**
→ **Loss Making**
→ **Break Even**
→ **Profitable**

3 Create a chronological path, and group the personas along it.

EXAMPLE OF A PATHWAY

Beginner Farmers

Experienced Farmers

Ex – Farmers

Personas Worksheet

NAME:

GROUP NAME:

I AM:

I LIKE / ENJOY:

MY NEEDS ARE:

MY VIEW ON:

RESEARCH SUBJECT

MY MAIN ASPIRATIONS & MOTIVATIONS ARE:

MY VALUES:

Six Thinking Hats

WHEN?

This group exercise is useful in the Understand and Create phase of the HCD process,
to expand thinking and to synthesize knowledge held by the group.

WHY?

This method, developed by Edward de Bono, is a useful thinking tool that can assist
groups to think in a detailed and cohesive way, and to be able to do this more effectively
and harmoniously. The human brain thinks in distinctive ways, and this process is intended
to challenge thinking patterns and ensure that all aspects of a subject are considered.
Coloured hats are used as metaphors for different ways of thinking. By switching hats
(literally or metaphorically) the team changes direction of thought. Everyone wears
the same colour hat and changes hats, and thinking, at the same time.

THE DIRECTIONS OF THOUGHT ARE EACH IDENTIFIED AS A DIFFERENT COLOR HAT.

1 BLUE – Managing

→ Think about thinking.
What is the subject? What are we thinking about?
What is the goal?

2 WHITE – Information

→ Consider what information is known or needed.
What are the facts (…and just the facts)?
Be neutral and objective.

3 RED – Emotions

→ Intuitive or instinctive gut reactions or statements.
What do you feel right now? Remember emotions
can change, and do not need to be justified.
Wear the red hat for a very limited time only (30 seconds)
to ensure that thinking is instinctive and
that there is no time to judge thoughts.

4 BLACK – Discernment

→ Spot difficulties, weaknesses and dangers;
and where things may go wrong. Identify reasons
to be cautious and conservative.

5 YELLOW – Optimism

→ Probe for positives and the benefits.
Give logical reasons for these.

6 GREEN – Creativity

→ Generate ideas, think of different alternatives
and approaches. This is an opportunity to
express new concepts and possible solutions to
the challenges that came up while wearing
the black hat.

Activity: Why Prototype?

HOW TO DO THIS ACTIVITY

Tell everyone in the room to make a paper aeroplane
Give everybody 10 minutes to make it out of paper.
Now tell them to decorate it to make it represent themselves.
Get everybody to fly their plane.

Now tell them they must swap with the person next to them.

Ask the group why they don't want to swap.
"How do you feel about exchanging aeroplanes?"
The reaction is usually disappointment.
Allow the group to arrive at the conclusion
that we really like what we make ourselves.

Learning: We overvalue what we design.
So it's important to test our ideas with people and
discover the weak points in our designs.

Feedback

→ **How to get feedback**

Silence is good.

Just hand the person your product and watch how they figure out everything for themselves.

Encourage stories.

Let them tell you how they figure things out.

It's about the user, not you.

Ask "why" and "how do you feel about this"

Emotions and reasoning help you see how the person sees the world around them.

Ask for specific instances.

Use open body language, eye contact and smile.

Do not interrupt.

→ **How NOT to get feedback**

"Do you like this"

People usually want to validate other people.
They'll just say yes, and not give their actual opinion.

"Would you use this"

Humans tend to agree with people and avoid interpersonal conflict. They will just say yes again, and you won't know whether they mean it.

NO yes/no questions

Keep everything open. Yes/No tells you nothing.
It's very hard to verify whether people actually mean the yes. Yes/no doesn't tell you what exactly the person likes/ doesn't like. It asks for an overall summation. Even if the user says "No" all you've gotten is a no. There's nothing there that's going to help you.

"I worked really hard on this part, what do you think?" - You're priming the user to agree with you. If you show any kind of attachment to your product, then people will not tell you their real opinion.
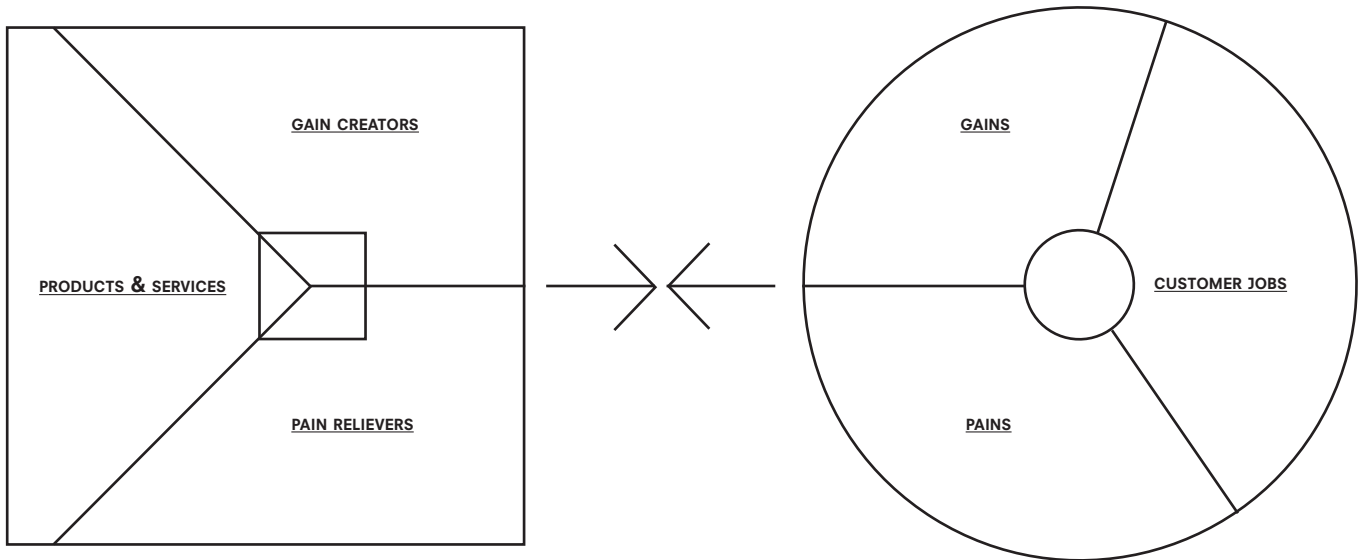
"How much would you buy this for?"

"Do you USUALLY do this or that"

"How often do you …."

"Is it because …"

You are giving the respondent an answer.

Value Proposition Template

GAIN CREATORS

GAINS

PRODUCTS & SERVICES

CUSTOMER JOBS

PAIN RELIEVERS

PAINS

Business Model Canvas

KEY PARTNERS	KEY ACTIVITIES	VALUE PROPOSISTIONS	CUSTOMER RELATIONSHIPS	CUSTOMER SEGMENTS
WHO ARE OUR KEY PARTNERS? WHO ARE OUR KEY SUPPLIERS? WHICH KEY RESOURCES ARE WE ACQUIRING FROM OUR PARTNERS? WHICH KEY ACTIVITIES DO PARTNERS PERFORM?	WHAT KEY ACTIVITIES DOES OUR VALUE PROPOSISITION REQUIRE? OUR DISTRIBUTION CHANNELS? CUSTOMER RELATIONSHIPS WHICH KEY ACTIVITIES DO PARTNER PERFORMS?	WHAT VALUE DO WE DELIVER TO THE CUSTOMER? WHICH ONE OF OUR CUSTOMER'S PROBLEMS ARE WE HELPING TO SOLVE? WHAT BUNDLES OF PRODUCTS AND SERVICES ARE WE OFFERING TO EACH SEGMENT? WHICH CUSTOMER NEEDS ARE WE SATISFYING? WHAT IS OUR MINIMUM VIABLE PRODUCT?	HOW DO WE GET, KEEP AND GROW CUSTOMERS? WHICH CUSTOMER RELATIONSHIPS HAVE WE ESTABLISHED? HOW ARE THEY INTEGRATED WITH THE REST OF OUR BUSINESS MODEL? HOW COSTLY ARE THEY? WHAT IS OUR MINIMUM VIABLE PRODUCT?	FOR WHOM ARE WE CREATING VALUE? WHO ARE OUR MOST IMPORTANT CUSTOMERS? WHAT ARE THE CUSTOMER ARCHETYPES?

KEY RESOURCES

WHAT KEY RESOURCES DOES OUR VALUE PROPOSISITION REQUIRE?

OUR DISTRIBUTION CHANNELS?

CUSTOMER RELATIONSHIPS

WHICH KEY ACTIVITIES DO PARTNERS PERFORM?

CHANNELS

THROUGH WHICH CHANNELS DO OUR CUSTOMER SEGMENTS WANT TO BE REACHED?

HOW DO OTHER COMPANIES REACH THEM?

WHICH WORK BEST?

WHICH ARE MOST COST EFFECTIVE?

COST STRUCTURE

WHAT ARE THE MOST IMPORTANT COSTS TO OUR BUSINESS MODEL?

WHICH KEY REOURCES ARE MOST EXPENSIVE?

WHICH KEY ACTIVITIES ARE MOST EXPENSIVE?

REVENUE STREAMS

FOR WHAT VALUE ARE OUR CUSTOMERS REALLY WILLING TO PAY?

FOR WHAT DO THEY CURRENTLY PAY?

WHAT IS THE REVENUE MODEL?

References + credits

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Related resources:

The following are related toolkits that each have informed the work of this toolkit and serve as valuable further reading to understand how to apply design thinking.

Stanford's d.school Toolkit

IDEO's HCD Toolkit

NESTA's DIY Toolkit

Conceptualised and developed by Future by Design based on our "Innovation through the Eyes of the Customer" process.