brac

βRACoron

The BRAC Way
of
desigining ~~for~~ with users

We all solve problems every day. But we usually do it in a haphazard way that can be time-consuming and stressful.

This handbook seeks to guide you through the discipline of human-centred design (HCD) to help you create real impact by involving users in the designing process. These methods may help you get to better solutions faster, and with fewer resources.

This booklet also reflects BRAC's experience of innovation, prototyping and co-creation, and describes how HCD can help you develop innovative solutions for your users - simply and effectively.

Now, without further ado, let's begin our HCD journey!

Warm regards,
BRAC Social Innovation Lab

Hi, I'm TIA

I will be your guide through your HCD journey.

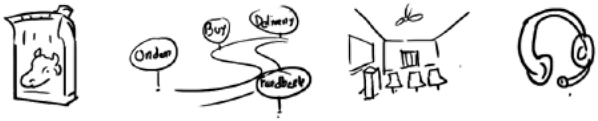
Keep an eye out for me! Thanks In Advance.

So what is HCD?

Human-centred design is a discipline that solves problems by collaborating with end users. By involving the users in the creation process, HCD helps develop solutions that are tailored to meet their actual needs.

What area will we be working on today? Let's choose one!

Product System Experience Service



3 Rules Of thumb

Respect:

- Are we putting the users first?
- Are we being careful to not do anything that will be considered offensive by our users?

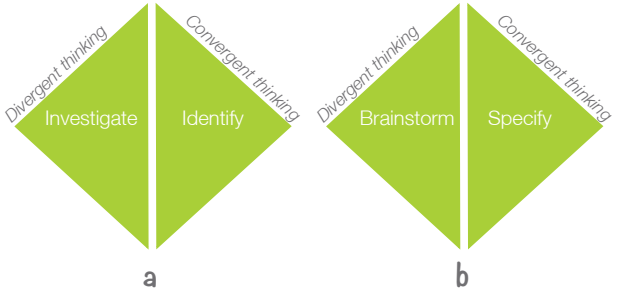
Responsibility:

- Are participants aware of what we're going to do with the information they've shared with us?
- Are we withholding information that might harm anyone in some way?

Open-mindedness:

- Are we generating enough ideas and defining the problem thoroughly?
- Are we moving forward with the best possible options for prototyping, even if they're not our own ideas?
- Are we willing to modify our solution if it isn't achieving the impact we want?

Mindset of a problem solver



** Double Diamond Model by British Design Council*

a. Before identifying the specific opportunity we want to address, we find as much relevant information about the problem as possible.

b. When we brainstorm, we try to generate as many ideas as we can. Then we narrow down to our most feasible option(s) for live testing.

This process follows what we call a "Double Diamond Model" of Divergent/Left-Brain Thinking, where we broaden our perspective, and Convergent/Right-Brain Thinking, where we rationalise and narrow down our prospects.

The HCD Process, at a glance

Unpacking the problem

Before starting to design, we need to "unpack" everything you know.

Let's discuss your assumptions and observations with others if you're working in a team, to develop a common understanding and identify opportunities for further exploration.

Tip:

Don't forget to document every step and decision point of the HCD journey!

Wait... .. .

ARE YOU READY TO GET CREATIVE AND MAKE THINGS HAPPEN?

☐ Yes ☐ No

If you have answered no, make sure at least someone on your team has the creative energy to drive the project forward. It is important to approach prototyping with a proactive 'CAN DO' attitude.

ARE YOU WILLING TO TRY A NEW WAY OF WORKING AND READY TO CONTINUE WHEN IT GETS DIFFICULT?

☐ Yes ☐ No

If you answered no, please reconsider. This process will be hard, but it should be fun, and it'll definitely be interesting!

HAVE YOU TALKED TO YOUR SUPERVISOR OR COLLEAGUES TO SEE IF THEY THINK THIS IS AN IMPORTANT ISSUE?

☐ Yes ☐ No

If you answered no, you should share your ideas first. It is important to ensure you're working on an important issue, and to get support for the prototyping process.

Are we ready to get things rolling?

If you answered yes to most or all the questions then you are ready!

.. ... let's begin

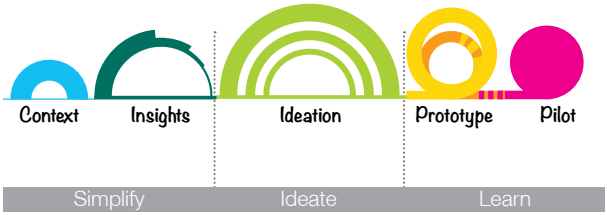
Write down your problem as a statement (within 15 words):

Make it simple, specific and concise.

E.g. Tuberculosis patients often suffer their symptoms for months before starting treatment.

The key steps

HCD has 5 steps, which can be separated into 3 phases: simplify, ideate and learn. You can remember it by the mnemonic S-I-L.



- Simplify: where we seek to understand our users and what drives them to frame the actual problem we will be working to solve.
- Ideate: where we make sense of what we have found and identify opportunities for testing.
- Learn: when we bring our ideas to life, and test and evaluate them to see what can be viable.

Context

To create solutions that respond to our users' needs, are economically feasible and technologically possible, we have to understand their context first. When we understand how our participants live and behave, we can empathise with them, and respond to their actual needs.

Who to talk to?

We need to talk to as many relevant people as we can manage within the expected time to find out more about our problem.

1. **Current users**
2. **Non–users and former users**
3. **Extreme users (novice and expert)**
4. **Users of similar products/services**
5. **Other key stakeholders**

E.g. To get more non-users to use BRAC Sanitary Napkin products

We can interview current, former, extreme and non-users:
High-school girls
RMG workers
Housewives
Other stakeholders can include:
Mothers
Teachers
Medical and Health Workers
Whoever may act as influencers

Tip:

We can save a lot of time and effort if we define our audience first

Let's talk

1. **Start with generic inquiries, then go deep**
2. **Ask lots of questions and follow leads to find out new things**

E.g.

TIA apa: Do you use bKash?
- No.

TIA apa: Why not?
- I find it complicated.

TIA apa: Why do you think it's complicated?
- I don't understand it.

TIA apa: Which feature did you find difficult?
- Actually, I haven't used it. I don't think it's for me.

Tip:

Listen patiently. The more time you spend, the more details you'll find!

What do they do every day?

We need to ask questions to understand the users' everyday life. E.g. What do they do? What do they value? What frustrates them?

- **In–depth inquiry often tells us about personal, cultural and other contextual details important to the problem**

E.g. Urban Dabi client daily diary

6:00 Wake up, make breakfast, send children to school
7:30 Go to work in factory, 3 km away
19:00 Head out from factory
19:30 Shop for groceries
20:00 Return home and prepare food
21:00 Serve dinner, clean dishes, and then clean house
23:00 Go to sleep

Time for roleplay

We won't have access to our users all the time, so we need to roleplay - to act out as our users, to empathise with them, and realise their everyday struggles.

1. **Put yourself in your users' shoes. Think of a person and pretend to be them**
2. **Have a friend or colleague ask you questions, and try to answer them from your user's point of view**

E.g. While designing a project for youth, one person acted as Rakib, an 18 year old college student from Bhurungamari while somebody else interviewed him to find out his dreams and aspirations. We used the exercise to design to help the local youth work towards their dreams.

HOW TO SET CONTEXT?

We identified and interviewed different types of people to understand how they live, how they feel and what their unmet needs are. We finished by roleplaying as our users to address the various aspects that our solutions must meet.

There are many other tools we can use to understand and empathise with our users, like collaging, card-sorting, photo-documenting or even sketching. Be sure to check out these resources online!

Insights

After we understand the problem deeply, we make sense of the information by coming up with insights. That helps clarify the goal we are working towards.

What is the current practice?

To understand a particular experience, we can draw a map of the existing practices, and identify the challenges and pain points the users face for the various steps in the journey.

1. **Capture the users' emotional and practical experiences at different touchpoints**

2. **Identify existing barriers in the system and possible opportunities for improvement**

E.g. People often litter on roads instead of finding a garbage bin. Pedestrians feel disgusted and frustrated by the mess (emotional experience), and sometimes compare walking on the roads to tackling an obstacle course (practical experience).

Tip:

Have you noticed any friction in the journey you didn't anticipate before?

How do users decide?

Our observations and findings are used to identify behavioural patterns and predict the decision-making actions of a user.

1. **By understanding the users' beliefs and emotions, we can identify the biases that drive their decisions**
2. **This sheds light on why the problem may exist and how a user reacts to it**

E.g. When buying migration-related products, potential migrants often bring along an elder person who usually influences which product to get. We should thus create communications materials anticipating questions of an experienced user, and promote reliability of our service.

Tip:

See how users compare your offer with the competitors before choosing.

Time to meet the users

Let's identify our target audience and choose a location to meet. Do consider:

1. **Who you will be designing for**
2. **Who you will be interviewing**
3. **Where you will meet comfortably**

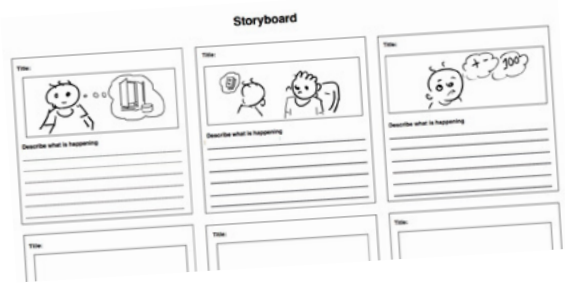
E.g. When designing an intervention that targets men residing in urban slums, the ideal time to meet them would be in the evening at the communal tea stalls.

What did you find out?

- **Sound bites:** Which quotes made an impression?
- **Amazing stories:** What surprised you? Why?
- **Remaining questions:** What would you like to explore in further interviews?

E.g. A WASH client

"My daughter is growing up. No way will I marry her into a household which doesn't have separate toilet for women!"



Let's group the data!

We group the findings that recur frequently, or are similar enough, to see if any themes or patterns emerge.

1. **Themes reflect patterns and issues that our users consider significant**
2. **Find supporting evidence to explain why these themes make sense**
3. **Some data may not seem relevant. Cluster them anyway, as they may be important**

- Did many people mention the same thing?
- Are there any behaviors you saw repeatedly?
- Which issues were obvious?
- Did you hear conflicting statements?

Finding Insights

Every theme cluster has a direct underlying cause. Identify that root cause, and that will be the insight we will use for solving our problem!

Finding Insights

The problem we're trying to solve is.. Urban slum fire incidents

Theme: Communal kitchen

Insights: 1. Nobody turns off stove because they think others will
2. Flammable walls prone to catching fire
3. People come and go casually

Theme:

Insights:

Tip:

It is okay to have more than one insight, we can work with multiple ones!

Frame it right

Frame Your Insights as Questions

Now let's frame the insights into questions that we want to solve for. Start each question with "How Might We...?" as a start-off point for further exploration.

A proper question can be difficult to frame. Too narrow and you may hinder creativity, but too broad and it will become too vague to be actionable.

E.g. How might we support tuberculosis patients to start treatment earlier?

Tip:

Write the questions in clear, easy to read language within 9-15 words.

Refine to define

We started by talking to our target audience to find out how they experience a solution, and what drives their choices. From our conversations, we gathered data that we clustered into patterns, from which we derived insights. We then came up with “How Might We...” questions which we will now use to generate ideas to solve our chosen problem.

Ideation

During this phase, we generate many ideas that address the opportunities and challenges from the previous phase. We then narrow down the ideas and select the most feasible options.

Let's Brainstorm

Let's come up with ideas for solving our "How Might We" questions. Remember - at this point we are generating ideas, not evaluating them!

1. **Encourage wild and different ideas**
2. **Don't judge the ideas**
3. **Build on the ideas of others**
4. **Stay focused on the topic**
5. **Let everyone talk**
6. **Draw your ideas**
7. **Go for quantity – the more the better**

Tip:

Use sticky notes. Be excited about hearing ideas from others!

Converge to form clusters

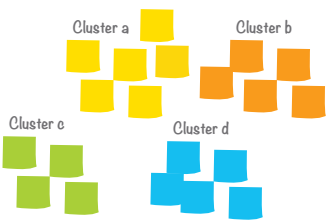
Cluster together similar ideas to see if patterns emerge.

1. **Decide on headings that capture the main idea behind each cluster**

2. **Group discussion:**
   What new ideas came up?
   What patterns were surprising?
   Did any barriers come up?

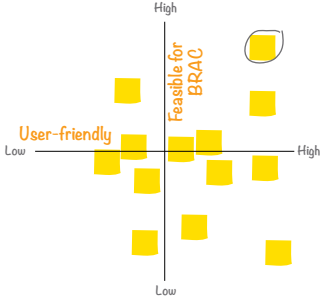
E.g. Tuberculosis

Instructions on cold meds packets; pharmacists info sharing; promo materials at pharmas; condensed to theme: targeting/incentivising pharmacists



Time to evaluate the ideas!

Draw a large 2x2 grid and position your first two potential criteria on opposing axes:



Place ideas on the quadrants on see what emerges.

Where are the ideas clustered?
Where are the blank spaces on the grid?
Where are the outliers?

Tip:

There are many ways to rank ideas, and 2x2 quadrants are just an easy, quick way to do so.

User's future journey map

Pick the highest ranked ideas and discuss how to convert them to solutions of your problem. With the user in mind, create an experience map to identify every step of the journey and clarify how customers interact with different touch-points.

1. **Write the stages in the user journey on a paper**
2. **For each stage describe what the user is trying to do and how the service supports them**
3. **Draw pictures to show all the ways that the user can interact with the service along the journey map**

E.g. To eat lunch at the BRAC staff canteen, users have to bKash money to an online portal and then preorder a token one day in advance. They then have to swipe their ID card at a counter outside the canteen to print out the allocated token.

Ideate

Congrats! We are almost halfway through our HCD journey!

During ideation we tried to generate as many ideas as we could to solve our problem. After that, we clustered them into converging themes and put them on an evaluation grid to find which were feasible for us to continue with. We then selected the best options and mapped out how customers would experience it, essentially simulating how our prototype would work.

Prototype

We rapidly prototype with a rough representation of our ideas to validate them before piloting and to understand the viability of the ideas or concepts.

Prototyping allows us to receive feedback, understand constraints and test assumptions without the risk of wasting too much resources.

** Prototype is a just a basic or preliminary version of a solution, not the final form.*

DO YOU HAVE LOTS OF QUESTIONS ABOUT YOUR IDEA?
☐ Yes ☐ No

If you have answered no, stop here and reconsider. Chances are you don't know it all. Prototyping will help you learn from others and build on your existing knowledge.

ARE YOU COMFORTABLE WITH THE IDEA IT MIGHT NOT WORK?
☐ Yes ☐ No

When prototyping, learning what doesn't work is as valuable as learning what does.
So move forward with an open mind and don't be afraid of failure.

DO YOU HAVE TIME AND RESOURCE TO PROTOTYPE YOUR IDEA APPROPRIATELY ?
☐ Yes ☐ No

If you have answered no, you will need time and you will need resources. Talk to your manager or the people you work with to ensure that you can secure the time and support required to run a prototyping project.

ARE YOU EXCITED TO SEE HOW USERS RESPOND TO YOUR IDEAS?
☐ Yes ☐ No

If you answered no, please reconsider. Prototyping helps you realise how your users actually feel about your idea.

THEN IT'S TIME TO PROTOTYPE!

How can we prototype?

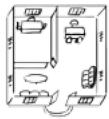
Physical samples

Communications

Create dummy brochures or other marketing material quickly and at low cost to get feedback on an intangible concept or service.

Mock-ups

Design a quick mock-up of your product – even if it's drawn on paper to involve your users in the testing.



Spaces

How do the consumers interact with the environment? What change will your idea make to their environment?

Experience versions

Service Experiences

Act out the experience by staging events such as customer service.

Person

Who carries out your design? How do you want service delivery staff to interact with customers? Quickly prototype to find out the best way.

Implementation

Make user journey maps to describe the journey steps. Focus on logistics like business models, production processes and technology.

Try to understand ... ..

Role

Examine the benefits that the user will experience from using the prototype, the function of the concept in the person's life, and the context the concept will exist in.

**Tools: storyboards, videos, journey mapping, scenario diagramming*

Look & Feel

Make something tangible; so users can touch and feel how the experience will be with an object or service.

**Tools: mood boards, wireframing, interactive demos, paper prototypes*

Live testing

Testing how our idea works in practice helps us understand gaps and then improve our idea. When we test prototypes, we learn from the users' feedback on our solution and use the opportunity to gain empathy.

1. **Provide users with the prototype and give them basic instructions of how to use it. But don't explain or correct, let them experience it on their own**

2. **Follow up with questions like: "Show me why this would [not] work for you." "Can you tell me more about how this made you feel?" "Why?" Use their answer to reiterate the prototype**

Tip:

Because we want to test rapidly, we should set a timeline for experimenting and stick to it.

Let's Iterate

We first create basic models for testing, and then develop them into more refined forms to resemble our final desired solution. This is called iteration.

E.g. (1) Developing an inventory app. We started with a basic list of products, and eventually iterated to include icon-based options that's easy for users to navigate. With each new iteration, we add more detail and incorporate feedback from users.

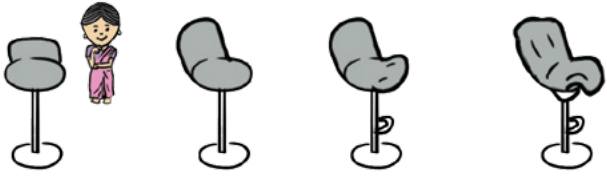
E.g. (2) Customer feedback mechanism. Through the iterations we simplified the feedback giving mechanism and enriched its functionality.

Experiment

While iterating the offering, we may need to try out more than one prototype for testing. If there are multiple viable ideas we want to test, or different versions of the same concept, we can prototype with them all!

We should select individual variables or have a matrix for measuring the feedback to find out which one works best.

E.g. Office furniture design. When designing what would be an ideal office chair, we can design various prototypes and take user feedback to understand their preferences and what is most liked!



Tip:

Don't take too much time for experimenting, it could waste your valuable resources.

Success Indicators

It is important to select what factors we are considering to validate success of our prototype. Too many variables may confuse us to what the users actually reacted to. So it's important to only select a few, and ensure that they are quantifiable.

Giving a user a choice and the ability to make comparisons often results in more useful feedback.

1. **Think about what aspect or feature you are testing with your prototype**
2. **Decide what impact you are trying to create, and what variable you would use to measure if it is working to create the impact you want**
3. **These variables/factors would work as your success indicators, and this is what you would measure the effectiveness of your prototype with**

Time to evaluate

To know if the prototype had any actual impact we have to do quick impact evaluations periodically.

What is impact evaluation?

Impact Evaluation examines the change in behaviour or well-being of the target audience (individuals, households, communities or firms) that can be attributed to an intervention. It is measured via the pre-determined success indicators.

Why is it important?

The evaluation results help decide whether the intervention is a success or if it needs to be modified. It is important to do evaluations at regular intervals, to assess if the intervention is working how we envisioned, to reiterate whenever needed, and to reduce the chance of a lot of resources being wasted for an unviable solution over time.

There are various ways we can do rapid impact evaluations:

Qualitative surveys: an unstructured way of knowing the thoughts and opinions of the participants, it helps us know how our users feel and why.

A/B testing: where we test two (or more) different experimental versions of our prototype at the same time, to understand which one users prefer more.

LogFrame Approach: it presents information about the key components of the prototype plan in a clear, logical manner, and helps us track what impact we are making.

We prototyped. now what?

After our rapid prototype run, we can better understand the outcomes and impact of our work.

We reiterated when needed, and used our success indicators to assess the impact of our prototype and then finalised our solution.

Based on the analysis, we can now approach management about piloting with our project.

Tip:

Even if the prototype failed, don't be disheartened. There is much to learn from failure! Your learnings could help someone else design better solutions in the future, so don't forget to document to keep track of what you have assessed and achieved.

Prototype:

We rapidly prototyped to test our ideas with our users, to get their feedback and reiterate. Sometimes we may have to test a few different ideas at once, or even multiple versions of the same idea, but we should keep in mind that we need to move through prototyping quickly.

We identified indicators for validating the success of our prototype(s) and evaluated our final products' feasibility before approaching management about piloting!

Pilot

After finalising our solution from prototyping, we are now ready to pilot!

During piloting, we study the long-term impact of our solution over a period of time (usually spanning 2-3 years), and evaluate whether our design is actually user-centric, and if so, if it can be scaled.

Pre-pilot

It is now time to finalise a few more details before we can move forward.

1. **Decide if you would be needing any partners for implementation, and if so, who?**

2. **How much time, resources (manpower, machineries and materials) and funding would you be needing for the pilot phase?**

3. **Set milestones you want to achieve on a quarterly, half–yearly, and annual basis for the pilot timeline**

Tip:

Write your decision points in paper, or better yet make a presentation for telling your story!

WHAT WAS THE FINAL PRODUCT FROM PROTOTYPING?

DO YOU NEED ANY PARTNERS?
☐ Yes ☐ No

HOW MUCH BUDGET DO YOU NEED TO IMPLEMENT?

HOW MUCH TIME ARE YOU PLANNING TO RUN THE PILOT FOR?

DID YOU MAKE ANY SIGNIFICANT CHANGES?
☐ Yes ☐ No

WHAT 5 RESOURCES DO YOU ABSOLUTELY NEED FOR PILOTING?

IS THE SOLUTION SCALABLE?
☐ Yes ☐ No

WHO ARE YOU PITCHING TO FOR PILOTING?

ONCE YOUR PILOT PLAN IS READY, PREPARE TO REACH OUT TO MANAGEMENT FOR PILOTING!

Before you go...

- What new things did you learn?
- Did you hear something interesting?
- Do you have any ideas for future prototypes?
- Are there any partnerships or platforms you'd like to explore?

Things I found interesting... .. .

Here are some of our favourite resources for HCD. Check them out!

Books

- Nudge by Richard Thaler and Cass Sunstein
- Scarcity by Sendhil Mullainathan and Eldar Shafir
- The Power Of Habit by Charles Duhigg
- How The Mind Works by Steven Pinker
- Hooked by Nir Eyal
- The Design Of Everyday Things by Don Norman
- A Simple Solution by A. M. Raza Chowdhury and Richard A. Cash
- Freedom from Want by Ian Smillie
- Making Tuberculosis History by BRAC Health Programme

Online Resources

- BRAC Website: brac.net
- IDEO Design Kit: designkit.org/resources
- Nesta DIYToolkit: diytoolkit.org/tools
- Stories from design in Practice: dschool.standford.edu/field-notes
- BIT Publications: behaviouralinsights.co.uk/publications
- GRID Impact Projects: gridimpact.org
- CGAP. cgap.org/publications
- Learnings from Google Design: medium.com/google-design
- Harvard Business Review: hbr.org
- Stanford SOCIAL INNOVATION Review: ssir.org

Before you leave, let TIA Apa introduce her friends who made BRACoron!

Shazzad Khan & Shafqat Aurin

You can find us at innovation.brac.net or on the 20th Floor of the BRAC Center on weekdays. And if you have an idea you want to develop... .. .

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