

The background features a stylized illustration of three individuals wearing face masks. On the left, a person with dark skin and curly hair wears a teal mask. In the center, a person with long dark hair and bangs wears a maroon mask. On the right, a person with blonde hair wears a lime green mask. The background is light blue and purple, decorated with various colored sticky notes (pink, yellow, purple, orange) and a purple hand-drawn doodle of a person's head with a lightbulb-like shape inside.

BioTriCK

DESIGN THINKING

WORKBOOK

This workbook is created for the facilitation of the EPBS/BioTriCK design thinking workshop. It is published under the Creative Commons license and thus free for you to use for any need or purpose in future.

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Introduction

Why Design Thinking?

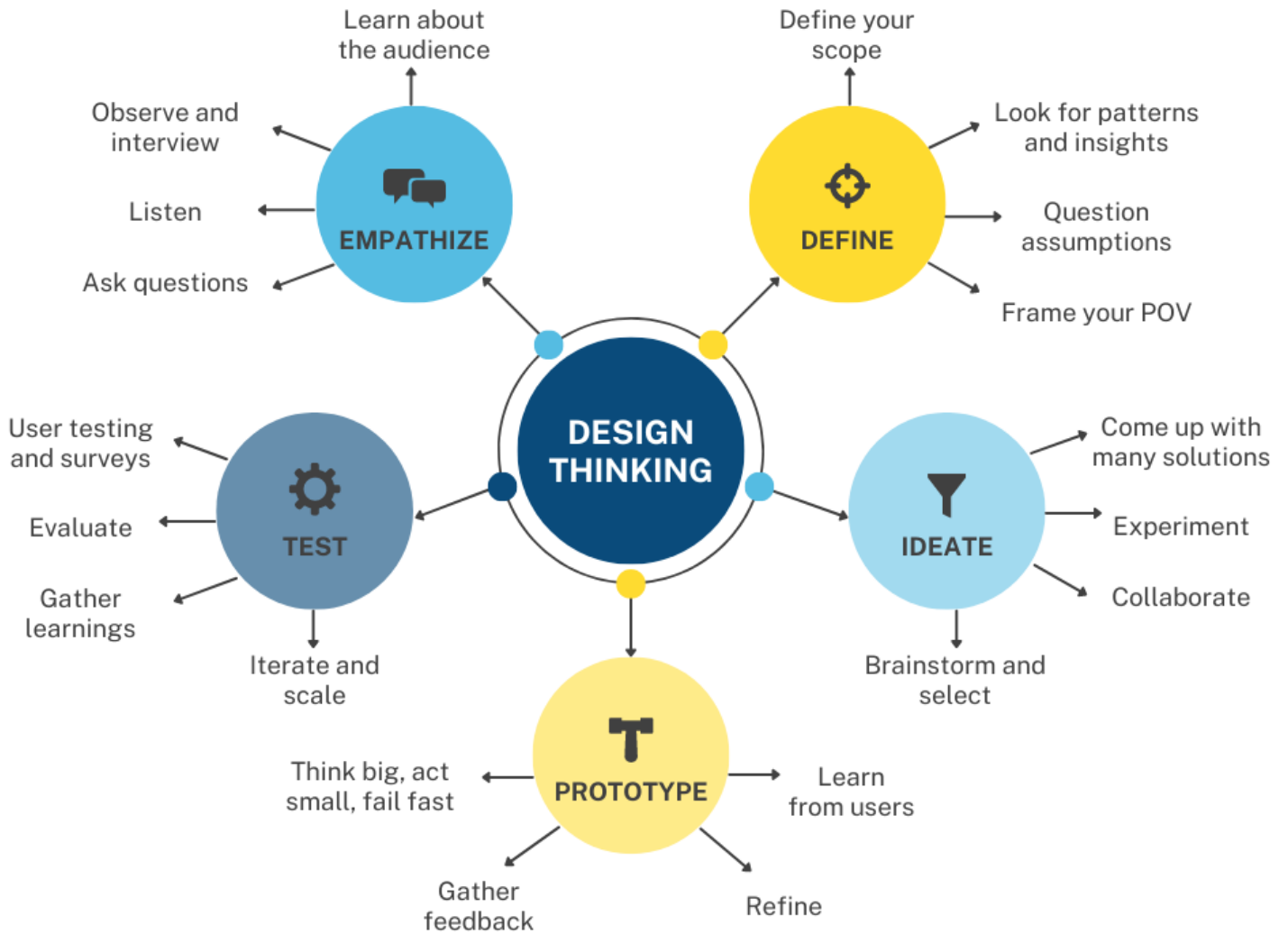
The world of work is changing. Globalization, creation of new jobs, climate change, different ways of working amongst other factors have impacted us all. With Corona Teaching and Learning has also changed, there are many solutions that popped up over night, but in order to truly serve our students and facilitate the sharing of knowledge on a larger scale a solution that is well designed is needed. In order to find a possible solution this workshop is aimed to bring Biomedical Laboratory Scientists (BLS) from all walks of life together to gain more insight into a possible new solution for international knowledge sharing in this community of practice.

We know the ability to think well is essential and the ability to use a design thinking approach and make tangible representations of learning is important. Design thinking is a human centred design process that seeks to gain understanding of the concerns, insights, lived experiences, and / or needs of others before developing solutions. Design thinking allows us to think beyond what currently exists. It allows us to begin to imagine what might be! It is a process typically used to wrestle with real world challenges and make meaningful changes. It starts with a consideration of how real people, in real situations will use and be impacted by the solutions we are proposing. We call this design process – human centred design. Design thinking helps to foster innovation by considering three components of a solution: what is wanted (desirability), what is possible using existing materials and technologies (feasibility), and what is affordable (viability).

In this workshop we will apply the elements of design thinking in order to outline the elements needed for a sustainable model for the knowledge sharing within BLS.

Design thinkers move through a five step process, repeating any or all of the steps as needed. These steps are: Empathy, Define, Ideate, Prototype and Test.

BioTriCK - Design Thinking



The design thinking process

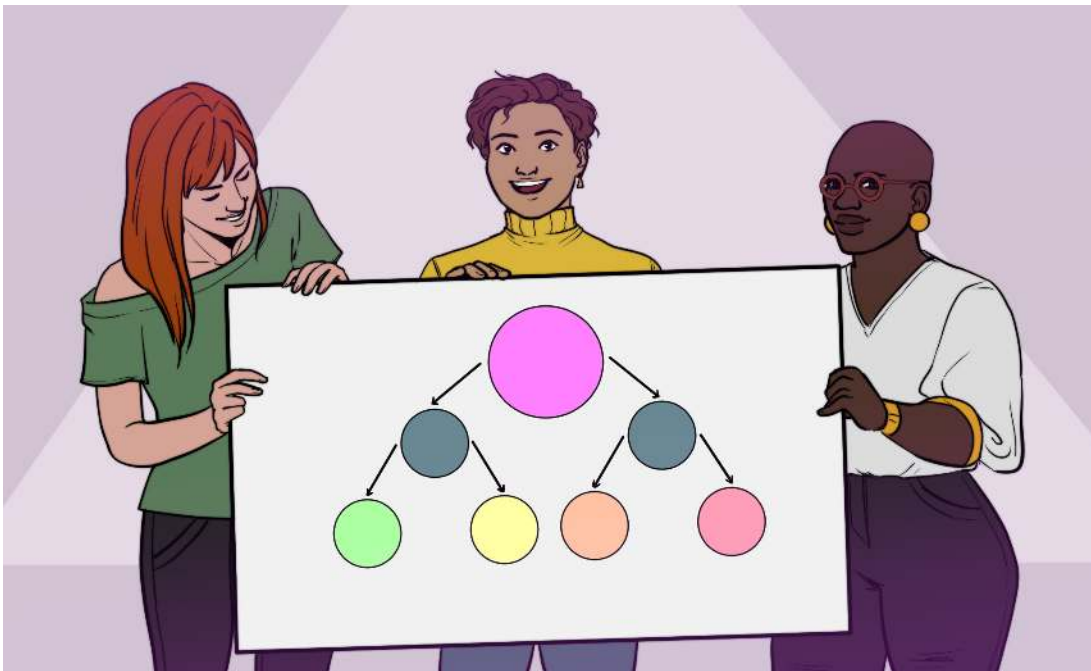
BIOTRICK - DESIGN THINKING

As you engage in a human-centered design thinking process, you will learn how to approach real world challenges, difficult concepts, and many perspectives by fostering the traits of a design thinker. These traits include:

- Empathy – Ability to image the world from multiple perspectives
- Integrative thinking – Ability to exploit opposing ideas and opposing constraints to create new solutions
- Optimism – Ability to assume no matter how challenging the constraints of a given problem, at least one potential solution is better than the existing alternatives
- Experimentalism – Ability to pose questions and explore constraints in creative ways that proceed in entirely new directions
- Collaboration – Ability to work together and require that complex problems require enthusiastic interdisciplinary collaboration (Tim Brown, 2008)

Design Challenge:

To create a sustainable model for knowledge sharing within the various environments of BLS locally and internationally.



The initial step in a human-centered design thinking process is gaining empathy through guided conversations with others. At the heart of well-crafted, guided conversations are well-crafted questions that are open-ended, engaging and politely probing.

Step 1: Empathy

Learning about your partner's perspectives and knowledge .

Guiding Questions:

What is the role of digital tools in this situation?

How do you see knowledge sharing and uptake using digitalization?

What are your thoughts on sharing of knowledge in general?

1. Participant A will have 10 minutes to listen as Participant B responds to the general questions. Participant A will record Participants B's responses in STEP #1. Remember you may need to ask additional powerful, open ended questions as prompts. There are many examples of powerful questions in the toolkit.

2. Switch roles: Participant B will have 10 minutes to listen to and question Participant A using the same general questions and any additional powerful, open-ended questions as prompts. Remember to record the responses on their sheets in #1.

Step 2: Define Challenges

Define Challenges Learning about your partner's experiences and contexts

Guiding Question:

What are the challenges healthcare workers face in the use of digital health or digital tools?

What other ways can support this?

Are there new more cost-effective ways?

1. Participant A will have 5 minutes to listen as Participant B responds to the question. Participant A will record Participants B's responses in STEP #2. Remember to write down additional notes that came out of the discussion.

2. Switch roles: Participant B will have 5 minutes to listen to and prompt with powerful, open-ended questions while Participant A responds to the question. Participant B records the responses in Step #2.

Step 3: Define Evidence



Step 3: Define Evidence

Now ask your partner to describe how their past experiences have informed the challenges they described

Guiding Question:

How do you know this?

Why do you think this is the answer?

1. Participant A will have 3 minutes to listen and prompt as Participant B responds to the question

2. Switch roles: Switch roles and ask Participant B to listen and prompt as Participant A responds to the question. Participant B records Participant A's responses in #3.

Step 4: Ideate



Step 4: Ideate

Asking your partner to form creative solutions to address their unique challenges

Guiding Question:

How might you create this into a sustainable model?

1. Participant A will have 5 minutes to listen and prompt as Participant B responds to the question



2. Switch roles: Switch roles and ask Participant B to listen and prompt as Participant A responds to the question. Participant B records Participant A's responses in #4.

Step 5: Prototype

Step 5: Prototype

Now you will work individually to create a prototype of a possible solution

Guiding Question:

After reviewing all your notes and reflecting on all the information you and your partner have created, what would be the ideal pricing and business model for an imaging room concept?

1. You will have 7 minutes to answer the guiding questions individually. Please describe, using words and / or drawings, how you would begin to develop and design a quality resource that could support active learning and foster a growth and intentional mindset in students.



Step 6: Test

You will receive new numbers and new partners. Now asking another participant to be your critical friend you have to describe your resource ideas. Remember to write down any additional ideas or questions your critical friend surfaces. Ensure that both participants have time to present and receive feedback.

Remember:

- Ask open questions
- Give constructive feedback
- Offer supportive ideas
- Use “and” rather than “but” when offering feedback If time allows, have the original partners met to go over their solutions and feedback.

1. Participant C will have 15 minutes to listen and prompt as Participant D responds to the question

2. Switch roles: Switch roles and ask Participant D to listen and prompt as Participant C responds.

EPBS Conference 2022

An illustration of a young man with brown hair and freckles, wearing a brown button-down shirt and blue pants. He is pointing his right hand towards a poster on a display board to the right. The background is purple with silhouettes of other people. The text 'Presented by: Chrisna Ravyse, Anniina Friman, Rui Lopez' is overlaid on the man's chest.

Presented by:
Chrisna Ravyse
Anniina Friman
Rui Lopez