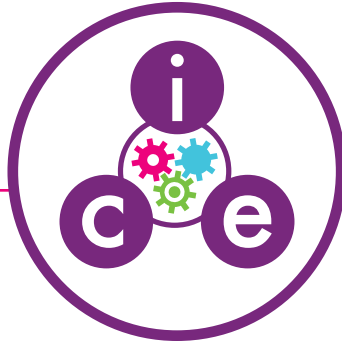
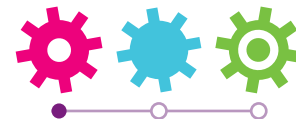




STUDENT WORKBOOK

Specialist High Skills Major
Innovation, Creativity & Entrepreneurship Training





Gear 1: Empathy and Need Finding

Empathy is the ability to understand the thoughts and feelings of other people, as different from one's own.

Need finding is the ability to identify the unmet needs of others. Need finding is a key step in defining the problem or challenge to be solved.



Mindset:

- I have a responsibility to create new ideas that meet needs in the world.
- I can see the value in understanding the world from another person's perspective.

WHAT OFTEN HAPPENS IS THAT A TEAM GETS TOGETHER AND STARTS **BRAINSTORMING...**

WE NEED A **BREAKTHROUGH IDEA** BUT I'M **STUCK!**

I KNOW! ME TOO...

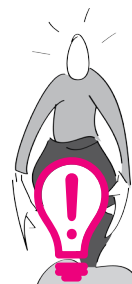
...MAYBE WE JUST HAVE TO **THINK HARDER!**



...AND EVENTUALLY THE TEAM WILL PROBABLY COME UP WITH AN IDEA: WHICH IS THEN **PRODUCED, PACKAGED, AND PRESENTED** TO THE WORLD...

THAT WAS A LOT OF WORK...

I SURE HOPE IT SELLS!



SOMETIMES THIS APPROACH IS SUCCESSFUL, BUT OFTEN WE'RE SURPRISED WHEN WE END UP WITH SOLUTIONS THAT MISS THE MARK...

WHAT'YA THINK?



I DON'T GET IT... AND I CERTAINLY DON'T **NEED** IT.

Potential Innovator



Potential Customer



DESPITE OUR **CREATIVITY, INTELLIGENCE AND HARD WORK**, WE CAN TOO EASILY **PRODUCE PRODUCTS AND SERVICES** THAT THE WORLD DOESN'T NEED OR WANT...

WHERE DID WE GO WRONG?



Identify a product or service that seems to be designed *without* the user in mind:

THE **ICE** TRAINING PROCESS FLIPS THIS APPROACH AROUND...

WE NEED A **BREAKTHROUGH IDEA!**

OKAY, BUT THIS TIME WE'RE GOING TO START BY IDENTIFYING **UNMET NEEDS**.

BY **OBSERVING, INTERVIEWING AND EXPERIENCING** WHAT USERS EXPERIENCE...



WE CAN DEVELOP **EMPATHY...**

...AND ONCE WE BEGIN TO UNDERSTAND **CUSTOMER NEEDS...**

...WE CAN USE THAT UNDERSTANDING OF CUSTOMERS TO **BRAINSTORM SOLUTIONS** THAT ACTUALLY MATTER TO THEM...

WHAT ABOUT THIS?



Innovator

IT'S **PERFECT!**

YOU TOTALLY GET ME...

Customer

Identify a product or service that seemed well-designed to *meet* the needs of users.

Which need finding activity did you complete?

☒ Check one or more.



☐ Observation



☐ Open-ended
interviews



☐ Experience



☐ Other

What did you discover?

Identify 1-3 needs you identified during your need finding activity:

What was unexpected?

What was interesting?

BY OBSERVING, INTERVIEWING AND EXPERIENCING WHAT USERS EXPERIENCED...

WE WERE ABLE TO DEVELOP EMPATHY...

...AND ONCE WE BEGAN TO UNDERSTAND THEIR NEEDS...



...WE COULD USE THAT UNDERSTANDING TO BRAINSTORM SOLUTIONS THAT ACTUALLY MATTER TO USERS...



Shifting Gears: Transitioning from Gear 1 to 2.

TO PREPARE FOR BRAINSTORMING, WE BEGAN BY TRANSLATING THOSE NEEDS INTO A "HOW MIGHT WE..." QUESTION.

WHAT "HOW MIGHT WE..." QUESTION IS YOUR TEAM USING TO FUEL YOUR BRAINSTORMING?



*How might we
help _____ meet his/her
need for _____
when it comes to...?*

Summarize your challenge statement:



Gear 1 Notes:

[illegible]





Open-Ended Interviews

Our challenge is: _____

This interview is with: _____

Tell me about _____

Tell me more... _____

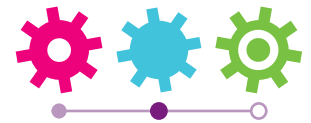
Why? _____

How did that make you feel? _____

What I heard:

Things that surprised or interested me:





Gear 2: Ideation and Prototyping

Ideation is the generation of new ideas.

Prototyping is a method for visualizing an idea, for the purpose of gaining feedback and further developing the idea.



Mindset:

- I believe that there are multiple possibilities and that I am capable of creating them.
- I am willing to take smart risks and learn from them.
- I believe I can learn from the ideas and strategies that I build, regardless of their success.



Which techniques did you use to brainstorm?

☒ Check one or more.



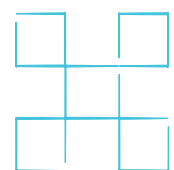
☐ Individual



☐ Pairs

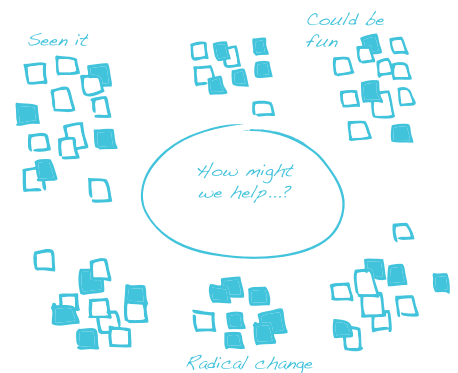


☐ Group



☐ Lotus Blossom

Your team came up with many ideas. Which one did your team decide to prototype, and why?



Prototyping is a method for visualizing an idea, for the purpose of gaining feedback and further developing the idea.



Identify two ways prototyping can improve an idea:

- 1.
- 2.

Which techniques did you use to prototype?



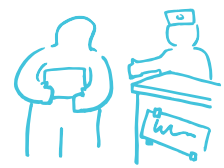
☐ Mash Up



☐ Sketching



☐ Build



☐ Role Play

What happened to your idea as you created your prototype? Did it improve? Change?

When you shared it with others, you received feedback.

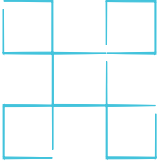
How did the feedback help improve your idea?

What's the advantage for innovators to seek feedback early in the design process, even though their ideas and prototypes are rough?

Gear 2 Notes:



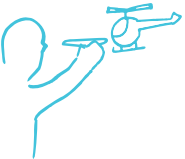
Brainstorming



Lotus Blossom



Mash Up



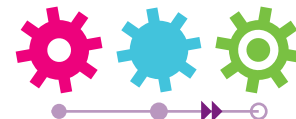
Sketch and
Feedback



Build and
Feedback



Role Play and
Feedback



Shifting Gears: Transitioning from Gear 2 to Gear 3



BEFORE MOVING ON TO
GEAR 3, SYNTHESIZE YOUR
THINKING SO FAR.



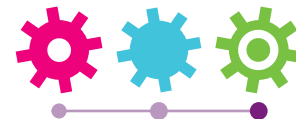
Mindset:

- I have a responsibility to create new ideas that meet needs in the world.

What was your “*How Might We....?*” question?

In one or two sentences, describe your idea.

Draw a picture of your idea.



Gear 3: Strategy and Testing

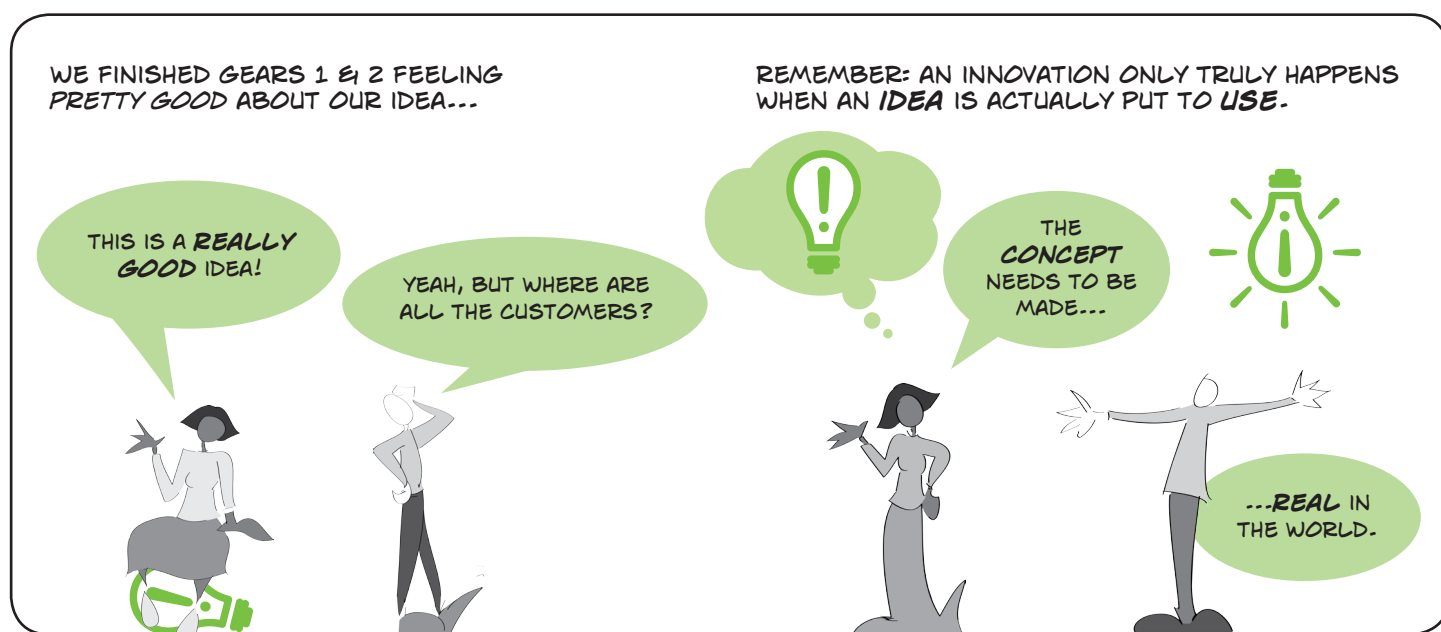
Strategy is a set of choices made to achieve a desired outcome.

Testing is a process of exploring the assumptions of a given strategy so that entrepreneurs can take action to make their innovation successful.



Mindset:

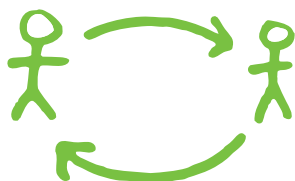
- I believe that there are multiple possibilities and that I am capable of creating them.
- I have the confidence to develop strategies to implement and sustain my idea(s).
- I am willing to take smart risks and learn from them.
- I believe I can learn from the ideas and strategies that I build, regardless of their success.
- I seek to understand and consider the impact and consequences of my innovations on the world.



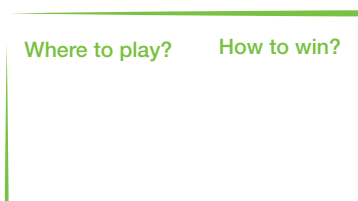
Gear 3 activities help us to think strategically about how to make our ideas come to life. The process of moving from idea to a successful enterprise is all about making choices and building a strategy for sustainability.

Which **Gear 3** activities did you use?

☒ Check one or more.



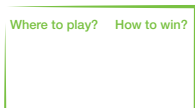
☐ Value Exchange

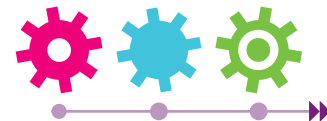


☐ Strategic Choices



☐ Testing





Shifting Gear: Transitioning from Gear 3 to Sharing Innovations



IN PREPARATION FOR
SHARING YOUR IDEAS,
SUMMARIZE YOUR SOLUTION
BY COMPLETING THE
STRATEGIC PLAN.



Mindset:

- I have the confidence to develop strategies to implement and sustain my idea(s).

Describe the customer your idea is serving.

Summarize how your idea solves the challenge and meets the customer's need.

Outline the value exchange: *Who is involved, what each person offers, what each person receives.*

Identify assumptions: *What would have to be true for your idea and strategy to work?*

Test the solution: *How can we test the idea?*

Suggested next step: Reflect on the ICE training process in your Individualized Pathways Plan (IPP).

[illegible]