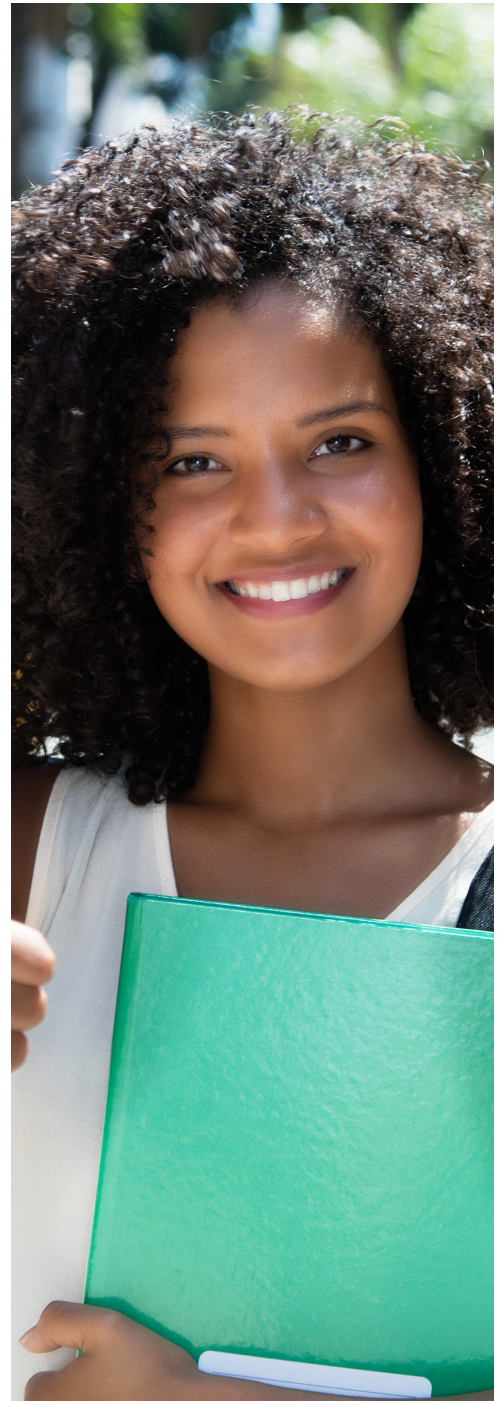


ECIER FOUNDATION

Innovation Lab: Problems Worth Solving

FACILITATOR'S GUIDE



2
module

Module 2: Problems Worth Solving



By the close of the module, students will:

- Understand how entrepreneurs view problems as opportunities.
- Identify a problem they would like to solve by developing a product or service.
- Understand the components of the Lean Business Canvas.

Materials Checklist

- | | | |
|--|---|--|
| <input type="checkbox"/> Module 2 PowerPoint | <input type="checkbox"/> Tape | <input type="checkbox"/> Timer |
| <input type="checkbox"/> Student Guide (1 p/student) | <input type="checkbox"/> String | <input type="checkbox"/> Measuring Tape |
| <input type="checkbox"/> Sign-In Sheet | <input type="checkbox"/> Spaghetti noodles | <input type="checkbox"/> Problem Worth Solving Handout |
| <input type="checkbox"/> Name Tags | <input type="checkbox"/> Jumbo marshmallows | <input type="checkbox"/> Lean Canvas Handout |
| <input type="checkbox"/> Pens | <input type="checkbox"/> Scissors | |
| <input type="checkbox"/> Student Evaluation Form | <input type="checkbox"/> Gallon Ziplock Bag | |

A/V Technology Needs

- | | | |
|------------------------------------|---|--|
| <input type="checkbox"/> Laptop | <input type="checkbox"/> Projector screen | <input type="checkbox"/> Internet Access |
| <input type="checkbox"/> Projector | <input type="checkbox"/> Audio [speakers] | |

Video Links

- | | |
|---|---|
| <input type="checkbox"/> "Lean Canvas Example :
Vegetarian Restaurant" | https://www.youtube.com/watch?v=2nW9lg-fenY |
|---|---|

Module 2 : Problems Worth Solving

Module Outline

10 min	Introductions Facilitator introduces himself/herself (name, occupation, etc.). Each student shares their name and grade. Lead : Facilitator
40 min	Icebreaker : Marshmallow Challenge This icebreaker challenges students to problem solve a seemingly impossible challenge within a team dynamic. Lead : Facilitator
10 min	Problem = Opportunity <ul style="list-style-type: none">• Entrepreneurs view problems as opportunities• Greener Globe Lead : Facilitator
5 min	Break Lead : Facilitator
45 min	Do You Have a Problem Worth Solving? <ul style="list-style-type: none">• Partner Activity : A Problem Worth Solving• Video : Lean Canvas Example : Vegetarian Restaurant Lead : Facilitator
10 min	Closing Remarks <ul style="list-style-type: none">• Final questions• Student evaluation• Upcoming events/meetings/reminders Lead : Facilitator

Module 2: Problems Worth Solving

Icebreaker : The Marshmallow Challenge

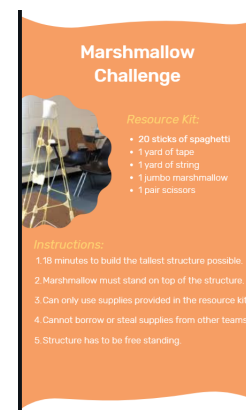
40 minutes

Slides : 2

Instructions

This icebreaker challenges students to problem solve a seemingly impossible challenge within a team dynamic.

- 1) Prior to the session, pack a Resource Kit for each team. The kit includes 20 sticks of spaghetti, 1 yard of tape, 1 yard of string, 1 jumbo marshmallow, and 1 pair of scissors in a gallon size Ziplock Bag.
- 2) Divide the students into teams of four.
- 3) Instruct each team to unpack the Resource Kit and read aloud the supplies included.
- 4) Read the instructions.
- 5) Set the timer for 18 minutes and instruct the teams to begin.
- 6) At the close of the 18 minutes, measure the structures to determine which team built the tallest structure supporting the marshmallow on top.
- 7) Discuss with the students their experience attempting to meet the challenge.
- 8) Inform the students entrepreneurs see every problem as an opportunity to create something great.



Slide No. 2

Problem = Opportunity

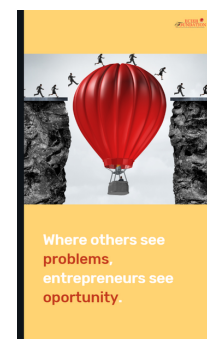
10 minutes

Slide 3

Facilitator Script

"Entrepreneurs see opportunities when others see problems. For example, do you ever have something happen during your day that annoys you? Do you ever think to yourself, 'I wonder if I can fix that problem?'"

A college student had a roommate that took 20-minute showers. The student believed that showers should take 5-10 minutes or less. Could anything be done to encourage the roommate to take a shorter shower, saving valuable water?"



Slide No. 3

Module 2: Problems Worth Solving

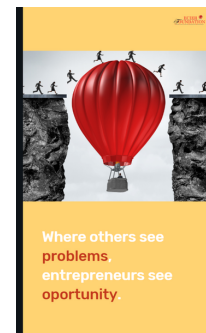
Problem = Opportunity

10 minutes

Slide 3

Facilitator Script

Yes! A couple years ago a group of teens in Ireland started a company called Greener Globe. These teens created a color coding system to remind people that when six minutes elapsed, the color turned green for a minute. After another two minutes, the water color turned amber (as in yield!). The final minute, the water turned red (as in stop!).



Slide No. 3

"Leaders in the community want teens to graduate from high school who are creative and innovative problem solvers."

Do You Have a Problem Worth Solving?

45 minutes

Slide 4

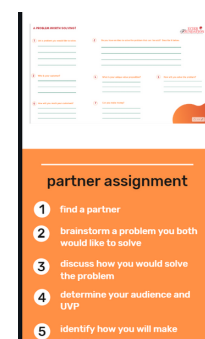
Facilitator Script

"In just a moment, you and a partner will work together to create a product solution to a problem you would love to solve."

Team Activity : A Problem Worth Solving

Instructions

- 1) Provide each student with a copy of the "Problem Worth Solving" handout.
- 2) Instruct the students to find a partner for the exercise.
- 3) Explain to students how to populate the handout.
- 4) Give each team thirty minutes to complete the handout.
- 5) Allow the teams to share their results.



Slide No. 4

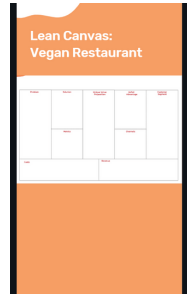
Module 2 : Problems Worth Solving

Lean Canvas Example

Video : Lean Canvas Example Vegetarian Restaurant

Instructions

- 1) Give each student one copy of the Lean Canvas Example handout.
- 2) Ask students to populate the handout as they watch the video.
- 3) Discuss the key learning of the video.



Slide No. 5