

4.0 Module 4 Design Project: with focus on exploring Creativity and Ideation

27 hours (18 in school and 9 at home)



Exposure 1

- Introduction to Creativity

Task 4.1 (at School + Home) - Analysis of the Problem to be solved

Task 4.2 (at School + Home) - Creative Explorations - Idea Sketching alternatives

Task 4.3 (at School + Home) - Detailing and finalizing alternatives

Task 4.4 (at School + Home) - Make a presentation of your alternate Ideas

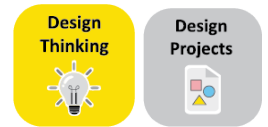
Final Output

- Design Solution Final Presentation and Documentation
+ Reflections, Self Assessment and References

4.0 Module 4

Design Project: with focus on Creative Explorations

(18 hours at school + 9 hours at home)



Introduction

In this module the students will focus on creative explorations and ideation and make use of the creativity methods and techniques learnt in the last module.

Aim of this Module

The aim of this module is to let students discover through exploration creative alternatives to a problem. The students should be able to come out with many alternatives – in this task at least a dozen ideas. The students are encouraged to brainstorm, think out of the box, lateral thinking, divergent thinking and analogical thinking. The students make use of creativity techniques like the use of SCAMPER and use of idea sketching. Sketching ideas makes one's thoughts visible and allows for discussion, analysis and comparisons.

Place:

Place: Task 4.1, 4.2, 4.3, 4.4, and 4.5 done at School and at home



Grouping:

Grouping: Class tasks are done in groups of 3-4 and Home tasks are individually



Equipment: **Equipment:** Notebook/Sketchbook for sketching and taking notes. Students may use digital devices like computers or tablets to collate information and make presentations (if available, but not necessary)

Exposures **Exposure1:** Introduction to Creativity and Innovation

Task Sequence **Task 4.1 + 4.2 + 4.3 + 4.4**
Exposure1: Introduction to Creativity and Innovation (20 Minutes)
Task 4.1: Understand the selected area/topic for exploration (2hrs + 40 min)
Task 4.2: Explore Creative techniques (9 hours)
Task 4.3: Detailing and finalizing alternatives (9 hours)
Task 4.4: Design Solution Final Presentation and Documentation (6 hours)

Design Thinking & Innovation Process involvement: This task involves the following phases of the DT&I Process:
Phase 1. Observe/Empathise/Research (Observation of Problem Space)
Phase 2. Understand/Analyse/Define (Understanding the Problem/Issue)
Phase 3. Ideate/Alternate/Create (trying several Creative Alternatives)
Phase 4. Build/Prototype/Detail (making Mock-ups and seeking Feedback)
Phase 5. Evaluate/Reflect/Implement (Summary and Presentation)

Mapping SDG Goals: The following SDG goals need to be considered while solving this task. While documenting elements and expressions, do think of gender equality and reduced inequalities and concern for life on our planet.



Task 4:

Task 4 = 4.1 + 4.2 + 4.3 + 4.4

School Hours: 18, Home hours: 9



Task 4.0



Overall Task (Task 4.1 + Task 4.2 + Task 4.3):

Task Topic:

Design Project:

Exploration of Creative Alternatives

In this module the students can work individually at home and form groups of 3-4 students and support each other at school.

The main aim of this course is for the students to be able to come out with several creative alternate solutions to the given problem, concern or issue. It's an enjoyable, fun exercise in being able to challenge oneself to come out with several alternate ideas, be able to look at them from different point of view and perspectives, even think of ideas that get better one after another. The students need to come out with at least a dozen alternate solutions.

The students can choose to work on different areas to work. The list of suggested topics is mentioned below:

- A. a set of 12 posters on the theme of conserving water – on A3 size sheets, with graphics, typography and images
- B. a set of 12 different objects using bamboo as material – prototypes of the objects are made.
- C. a family of 12 characters as part of a story – drawn with details of expressions, gestures, dresses, pets, etc
- D. a set of 12 different products using paper corrugated sheets (make use of old cardboard boxes)
- E. a set of 12 different illustrated stories based on the adventures of a few characters (like the stories in Panchatantra)
- F. a set of 12 different games that can be played with a set of seeds, stones and sticks

Task 4.1



Task 4.1

School Hours: 2 and Home hours 1

Task Title:

Understand the selected area/topic for exploration:

1. Brainstorm, analyze and understand the selected area or topic
2. Make a list of key words connected with your area / topic
3. Look for analogies as inspiration for your area / topic
4. Figure out the media, materials and image techniques
5. Making a mind-map could be useful

Output 4.1: Make a list of the interconnected factors according to priority

Task 4.2



Task 4.2

School hours: 6 and Home hours: 3

Done in groups of 3-4 at School and individually at Home

Topic title:

Explore Creative techniques

1. Look at your key-words or the mind map to see the area or problem from different points of view
2. The students are encouraged to brainstorm, think out of the box, lateral thinking, divergent thinking and analogical thinking in order to come out with several alternate ideas
3. The students make use of creativity techniques like the use of SCAMPER
4. Each of the ideas is made visible through sketches
5. Spend considerable time in trying to challenge yourself to come out with better and better ideas. You can do this by analyzing how the previous idea can be improved or by looking at another solution from a different perspective.
6. Ideate at least 12 alternative solutions and sketch these

Output 4.3: Make a presentation of the creativity techniques used in 3-6 slides (alternate sketches + short-listed idea)

Task 4.3



Task 4.3

School hours: 6 and Home hours: 3

Done in groups of 3-4 at School and individually at Home

Topic title:

Detailing and finalizing alternatives

1. Select the best one out of your ideation and finalise it with details.
2. The final concept could involve any of the following:
 - 2D/3D design Sketches + Physical Prototyping + Visualisation + 3D Models
3. Make a mock-up of your final idea – a scaled version
4. Show the mock-up to potential users and get feedback
5. Incorporate suggestions from the feedback in your design
6. Make the final prototype

Output 4.4: Make a presentation of these in 3-6 slides (mock-up + feedback + details)

Task 4.4



Task 4.4

School hours: 4 and Home hours: 2

Done in groups of 3-4 at School and individually at Home

Topic title:

Design Solution Final Presentation and Documentation

- Select the best one out of your ideation and

Presentation Details of points mentioned above:

Task 1: Prepare a presentation (of 6-8 minutes duration) to include all the stages of your project:

- a. Title of the Creative Explorations Design Project or Problem Statement
- b. Team members
- c. Summary/content listing of your presentation

- d. Insights from understanding the area/topic
- g. Creative explorations of 12 Alternate Concepts (through sketches and visuals)
- h. 12 alternatives with details and prototypes
- i. User feedback on your final solution
- j. Next steps and suggestions
- k. Full References
- l. Acknowledgments – to all who have helped

Output 4.5: A presentation (6-8 minutes, roughly 15 – 25 slides) explaining the Project outcome along with the creativity Process

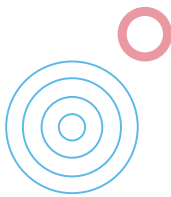
Reflection:



Questions to ponder:

- Do you feel that the challenge of coming out with a dozen alternate ideas was worth it?
- Can you apply what you learnt by solving design problems creatively starting at your home or neighbourhood?
- Will you share this information on the use of creativity techniques with others – like your friends and cousins?

Self Assessment:



Assessment Criteria (Task 4.1 + 4.2 + 4.3 + 4.4) - Assess yourself:

- The students understood the problem area well and did a proper list of the interconnected factors according to priority. (Group + individual task 4.1)

Beginning *Developing* *Promising* *Proficient* *Excellent*

- The use of various creativity techniques for exploring alternate ideas was done well. (Group + individual task 4.2)

Beginning *Developing* *Promising* *Proficient* *Excellent*

- Came out with 12 creative innovative alternate ideas along with sketches (Group + individual task 4.2)

Beginning *Developing* *Promising* *Proficient* *Excellent*

- The detailing and the mock-up of the prototypes were done well (Group + individual task 4.3)

Beginning *Developing* *Promising* *Proficient* *Excellent*

- The final presentation showing the creative design process and the 12 alternate solutions were done well (Group + individual task 4.4)

Beginning *Developing* *Promising* *Proficient* *Excellent*