

# Education for Sustainability with System Design Thinking

Instructor Case Study Group  
Project Guide



# About this Guide

This guide is intended for instructors leading the case study group project and accompanies the Student Guide.

This guide includes:

- Outline responsibilities throughout the project
- Overview of the timelines
- Strategies to help support students

# Instructor Resources

The following are links to documents and resources that will help you and your students throughout the project.

## *Frameworks*

- [Design Thinking Framework](#)
- [Double Diamond Framework](#)
- [Introduction to System Design Thinking](#)
- [Iceberg Model](#)

## *Team Meetings*

- [Belbin's Team Roles](#)
- [Group Resume](#)
- [Team Contract](#)

## Communication

- [Status Check Survey](#)

## *Evaluations*

- [Sample Self-Evaluation Form for Group Work](#)
- [Sample Group Process Assessment](#)
- [Sample Peer Evaluation Form for Group Work](#)

## *Rubrics*

- [Final Project Group Assignment Rubric](#)
- [Engagement In-Class Contribution Rubric](#)

# Learning Schedule

The following is a recommended learning schedule for the project. It is divided into 6 modules that can be modified to run through any period of time such as a week or an entire term.

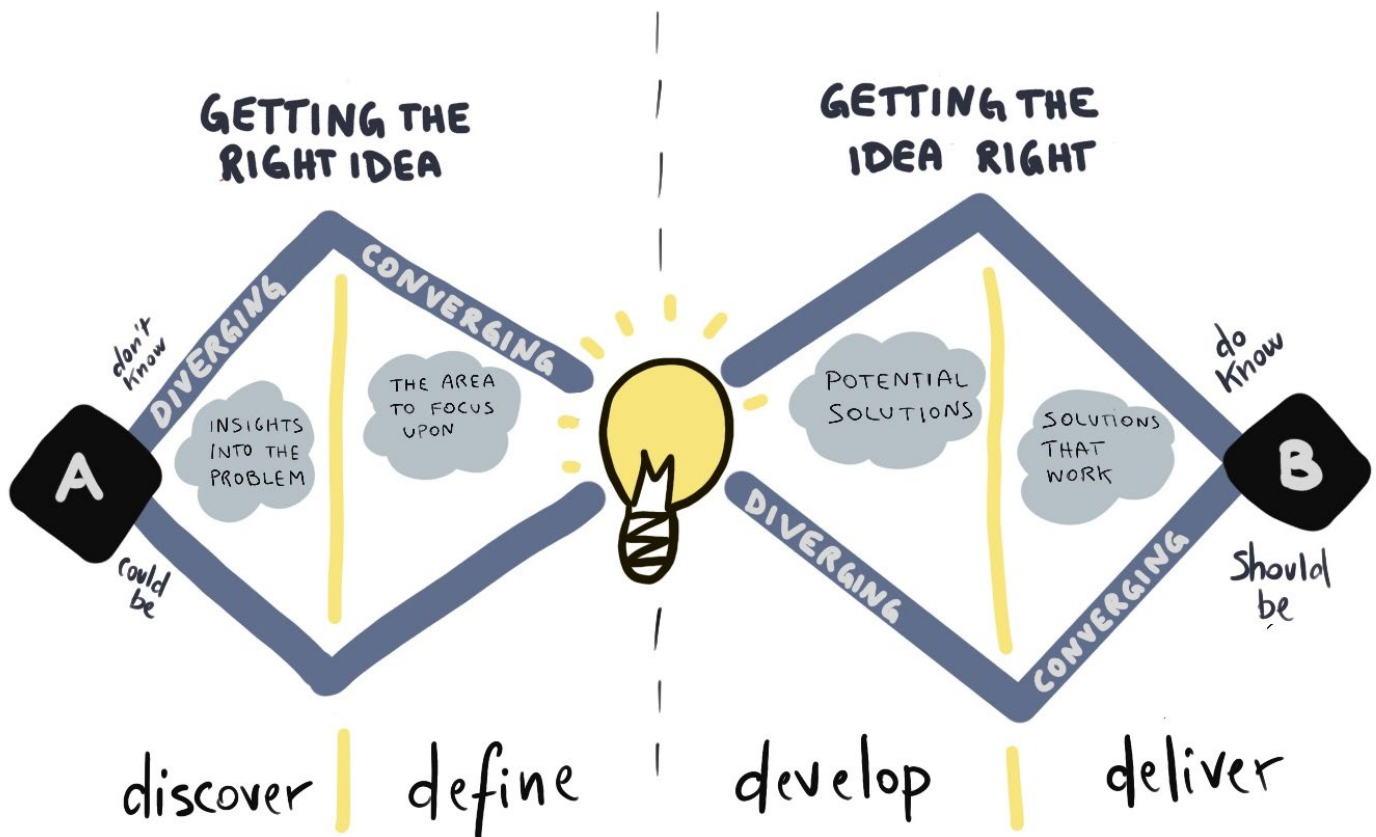
Module	Class Concepts / Guest Sessions	Topics, Readings, and Activities
1	<ul style="list-style-type: none"> <li>Kick Off - Today Agenda</li> <li>Pre-COIL workshop with Humber Global               <ul style="list-style-type: none"> <li>Kick Off Event</li> <li>Project Introduction</li> <li>Student introductions -get to know your team</li> <li>Google Drive Tour</li> <li>Student Files</li> <li>Compulsory and Optional documents</li> <li>Explain groups and weekly assignments</li> </ul> </li> </ul> <p><i>Please make sure your camera and audio are working before joining the class.</i></p> <ul style="list-style-type: none"> <li>Pre-COIL workshop: Introductory workshop with Case Study Subject</li> </ul>	<ul style="list-style-type: none"> <li>Due before class: complete your individual introduction and read the case</li> <li>Watch videos on <a href="#">Double Diamond</a> and <a href="#">Iceberg System Design Thinking</a></li> <li>Report 1</li> <li>Yang, S., Song, Y., &amp; Tong, S. (2017). <i>Sustainable Retailing in the Fashion Industry: A Systematic Literature Review</i></li> </ul>
2	<ul style="list-style-type: none"> <li>System design thinking workshop – live session or prerecorded video</li> <li>Live Coaching session - Discover: brainstorming ideas</li> </ul> <p>Students are expected to stay for 1.5 – 2 hours to meet with coaches</p>	<ul style="list-style-type: none"> <li>Review before class: <a href="#">Double diamond design thinking</a></li> <li>Read before class: <a href="#">System Design Thinking</a></li> <li>Group work</li> <li>Report 2</li> </ul>
3	<ul style="list-style-type: none"> <li>Creativity workshop - prerecorded</li> <li>Live Coaching session - Discover: expanding ideas</li> </ul> <p>Students are expected to stay from 1.5 – 2 hours and meet 2 coaches for 30 minutes</p>	<ul style="list-style-type: none"> <li>Read before class: <a href="#">System Design Thinking</a></li> <li>Group work</li> <li>Report 3</li> <li>Finish the <a href="#">Empathy Map</a></li> </ul>

Module	Class Concepts / Guest Sessions	Topics, Readings, and Activities
4	<ul style="list-style-type: none"> <li>• Live Coaching session - Define</li> </ul> <p>Students are expected to stay for 1.5 – 2 hours to meet with coaches</p>	<ul style="list-style-type: none"> <li>• Group work</li> <li>• Report 4</li> <li>• Sweeney, L. B. (2001). <i>Systems Thinking: A Means to Understanding Our Complex World. In When a Butterfly Sneezes: A Guide for Helping Kids Explore Interconnections in Our World Through Favorite Stories</i></li> </ul>
5	<ul style="list-style-type: none"> <li>• Live Coaching session - Develop: refining prototype</li> </ul> <p>Students are expected to stay for 1.5 – 2 hours to meet with coaches</p>	<ul style="list-style-type: none"> <li>• Group work</li> <li>• Report 5</li> </ul>
6	<ul style="list-style-type: none"> <li>• Live Coaching session - Deliver</li> </ul> <p>Students are expected to stay for 1.5 – 2 hours to meet with coaches</p>	<ul style="list-style-type: none"> <li>• Group work</li> <li>• Final Presentation</li> </ul>

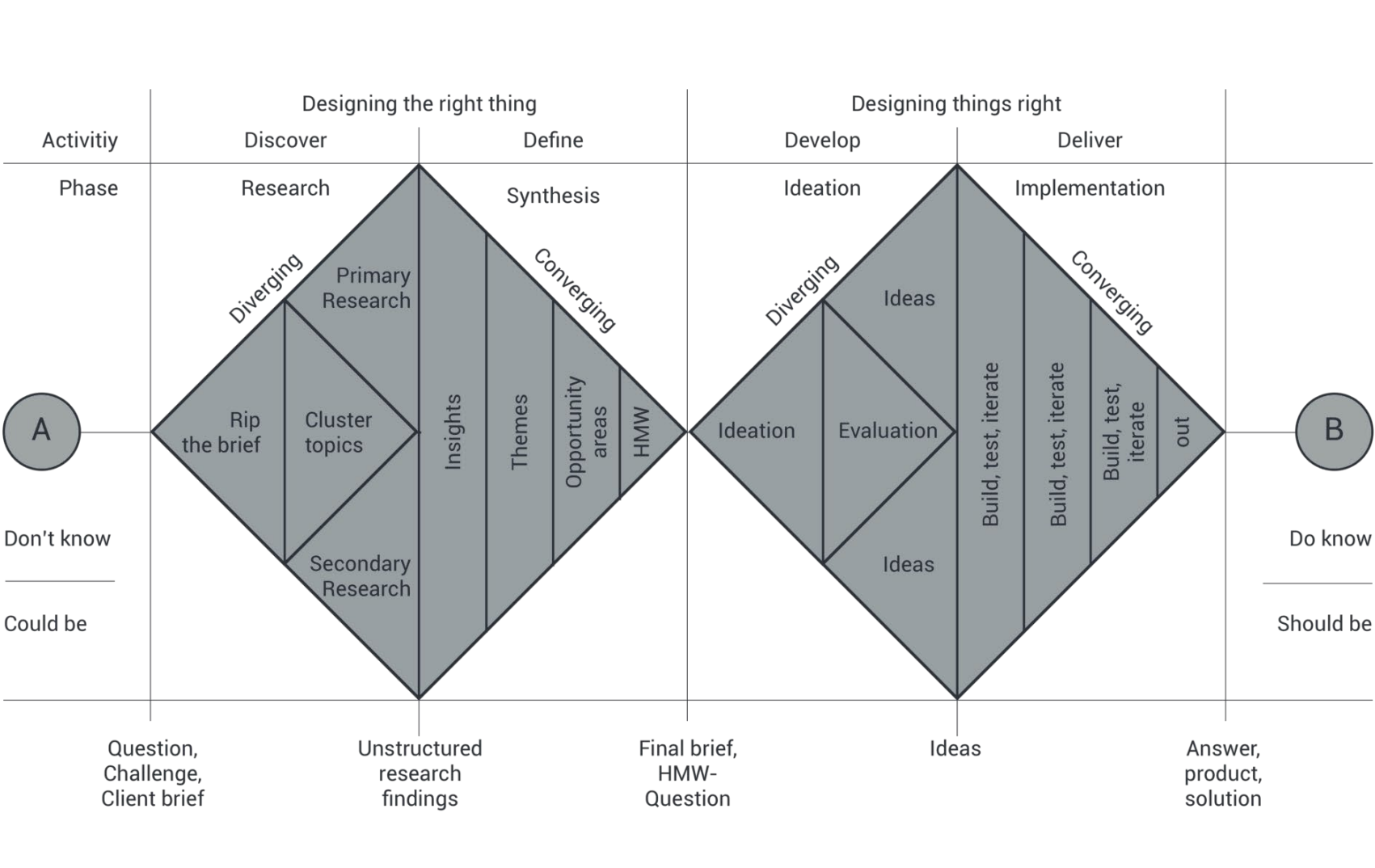
# Double Diamond Framework

This project follows the Double Diamond Design Thinking Framework. There are four phases:

- Discover:** Understand what the problem is, this means speaking to and spending time with people who are affected by the issues.
- Define:** The insight gathered from the discovery phase can help to define the challenge in a different way.
- Develop:** Give different answers to the defined problem, seeking inspiration from elsewhere and co-designing with a range of different people.
- Deliver:** Involves testing out different solutions at small-scale, rejecting those that will not work and improving the ones that will.



Source: Dan Nessler, Willemien Brand



Dan Nesller, 2016 [Image Source](#)



# Homework Forms and Documents

Throughout the project students will be required to complete the following forms and documents as part of their homework. Note that some tasks are to be completed as a group, and some individually.

## Beginning of Project | Module 0 – 1

- Group Members discuss role fit under [Belbin's Team Roles](#) and assume a role.
- Group members complete together [Group Resume](#)
- Complete together [Team Contract](#)
- Plan the project with assigned deadlines and responsibilities

## Mid Project | Module 3 – 4

- Individually: Sample [Self-Evaluation Form for Group Work](#)
- Complete individually "Group Assessment Process". Following that, as a group plan for improvements. [Group Process Assessment](#)

## End of Project | Module 5 – 6

To be completed individually:

- Complete [Peer Evaluation Form for Group Work](#)
- Sample [Self-Evaluation Form for Group Work](#)





# Reflection Papers

Throughout the project students will be responsible for completing several reflection papers on their experiences, insights, challenges, and development. The purpose of the reflection papers is to provide students with an opportunity to improve on their strengths and learn from challenges.

## Midterm Assessment

It is recommended that students receive a midterm assessment. This will allow students the opportunity for to receive feedback on their performance and adjust for improvements.

Both the instructor and the student complete the [engagement rubric](#) based on the student's past performance. The instructor will then meet with the student to compare the rubrics, and discuss any discrepancies, strategies for improvements and next steps.

Note that the midterm assessment is optional and can be used at each instructor's own discretion.

## Final Evaluation

The final evaluation and grade will be based on the following [rubric](#).

# Guest Speaker

A guest speaker will present to the class during the first half of the project. It is important to prepare in advance for the speaker so that you can make the best use of their time.

Here are some points to help your students prepare:

- Research the speaker's company and past work. Learn about the company's history, values, products, strategies, workforce, challenges, media presence, and finances.
- Create a list of questions that would help support your project. These questions should be about information unavailable elsewhere.

During the presentation, make sure you are listening closely and taking notes. After the speaker, reflect on what they have said and consider how you will implement what you have learned.



# Group Work

## Overview

Each team must create a report to be shared on Google Drive at the end of each module, reporting the process of their project.

## Group Requirements

The group is responsible for meeting twice every week. Sessions should last between 2.5 – 3 hours.

## Organizing your Meetings

Students may use any online platform to meet such as Google Hangouts, Microsoft Teams, or Zoom.

Ensure that everyone in your group has the appropriate software for the meeting

## Weekly Group Reports

Each week your group is required to submit a report.

The group reports must include:

- Discussion minutes
- Relevant images, videos, or documents
- At least one report must include the Field Trip notes and images.

# Field Trip Notes and Images

A field trip is an outside physical exploration, such as visiting a site, or location. Students are *responsible for including field trip notes on at least one of their group reports.*

The notes should include images, descriptions, summaries, and other details of your work.



# Group Reports

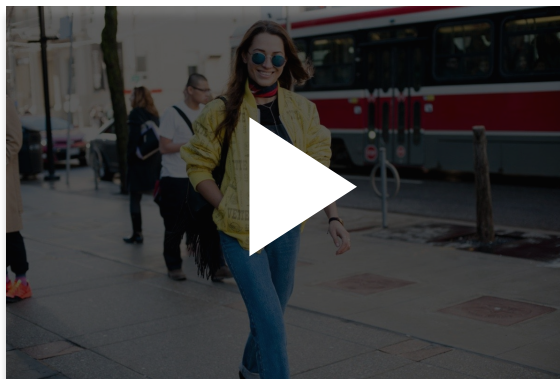
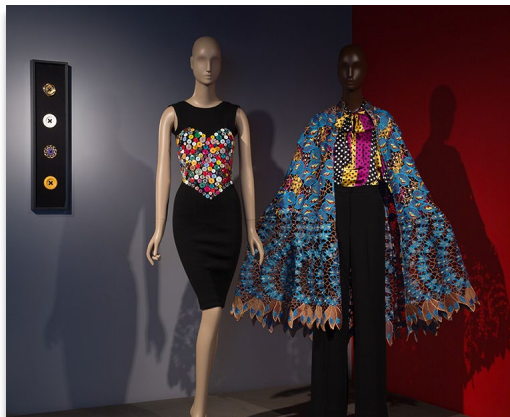
## Discussion Minutes

Writing meeting minutes during meetings are optional and recommended. Team members should assign one meeting note-taker or take turns creating the minutes.

Students can use the [Meeting Minutes template here](#).

## Images, Videos, and Documents

The report should include any images, videos, or related documents that highlight the group's progress. Each item should include brief description summarizing its relevance.



# Group Work Best Practices

The following are some best practice strategies to help ensure your group is working collaboratively and effectively.

## Assign Roles

Your group should assign and rotate the roles and responsibilities for each meeting. This will ensure that all tasks are shared between all group members and help improve efficiency. For example, taking minutes during the meeting, completing a research task, or writing the summary notes on the report.

## Writing Minutes

Meeting minutes are intended to summarize the main ideas and decisions on what was discussed during a meeting. They are not written transcripts of everything said. You can use the following [minutes template here](#).

Your minutes should include:

- The date and who was in attendance
- A summary of each topic that was addressed, such as an agenda
- Brief notes on the main ideas discussed
- Group decisions on a particular strategy or direction
- Any next steps, who will complete them, and by when



## Communicating with Group Members

Communication and collaboration are essential for a successful working group. Every member should understand their responsibilities and expectations and be able to work together.

- Exchange emails and contact information with everyone in the group. Decide on meeting times that are convenient for everyone.
- When discussing, ask follow up questions such as “could you give an example,” or “could you describe what would that look like?”
- Ask members what their strengths are and what they would like to work on.
- Communicate clear and realistic timelines. For example, instead of saying “Great, Kieran will get that done.” say, “Kieran, will you be able to complete that by the end of the day on Thursday?”
- Encourage participation from everyone. For example, “Let’s go around and hear everyone’s thoughts on this.”



# Communicating with Students

Students may require support in problem solving issues in their groups, such as scheduling meeting times, some group members not completing their tasks, unequitable workloads, or general conflict in making decisions. Student and instructor communication is an important element in resolving any issues.

- Provide an email for students to contact you.
- Use the following [status check survey](#) at the end of each project stage (Discover, Define, Develop, Deliver). Note that you will be prompted to make a copy of the survey to save in your own files.
- Encourage students to follow up if they have any concerns or questions.

# Immersive Design Thinking Experience

At each stage of the project (Discover, Define, Develop, Deliver), students are encouraged to explore the Immersive Design Thinking Experience.

Each stage of the design thinking model is represented by a different virtual environment. Navigate around the environment to uncover different artifacts and prompt questions related to the stages. This exploration will help students generate ideas, and better understand the purpose and value of each design thinking stage.



# Source Material

- *Double Diamond: A structured approach to tackle challenges in four phases, from exploring to taking focused actions.* Ilaria Doria, Darpan Sunwar, 2021.  
<https://openpracticelibrary.com/practice/double-diamond/>
- *How to apply a design thinking, HCD, UX or any creative process from scratch,* Dan Nesler, 2016. <https://medium.com/digital-experience-design/how-to-apply-a-design-thinking-hcd-ux-or-any-creative-process-from-scratch-b8786efbf812>
- *The essentials of Theory U: core principles and applications'* book. Scharmer, C. O. (2018). *The essentials of Theory U: core principles and applications* (First edition). BK, Berrett-Koehler Publishers, Inc., a BK Business book.
- Yang, S., Song, Y., & Tong, S. (2017). *Sustainable Retailing in the Fashion Industry: A Systematic Literature Review*
- All images used under license from Shutterstock.com