



Co-Creating Better Space:

Engaging Students to Solve 24/7 Study Centre Issues

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(Design, Interim Fashion & Textiles)

PolyU, Pao Yue-kong Library



Project Background

Project:

Collaboration between the PolyU library and School of Design Assistant Professor of Practice Marc Chataigner [sha•ten•yee] for class SD4002.

Focus:

The 24-Hour Study Centre was chosen due to high seat occupancy, food-related hygiene issues, and disruptions during overnight transitions—factors that impact fairness and study quality while minimizing broader library disruptions.

Goals:

- Empower 14 Year-4 PolyU design students from different design disciplines to become **Change Agents**.
- Create an opportunity for students to learn from different design disciplines.
- Apply behavioral design and nudge theory to improve the library community.
- Collect user insights on the 24-Hour Study Centre and potential library improvements.



Team 7-24 students



Project Summary

Research time:

- 9 weeks of a research study for the 24-hour Study Centre

Research Approach:

- Data was collected through field studies, survey boards, and interviews with library users

Key Focus:

- Improve the desk hoarding behaviors
- Discourage Food consumption
- Finding any disruptive behaviors during the on-site observation study

Report Results :

- 1 Interim presentation for discovering the findings
- 1 Final presentation for providing the design solutions

Design Solution:

3D Signage by LIU Chin, Chin

Falling drink (fake) + Funny reminder

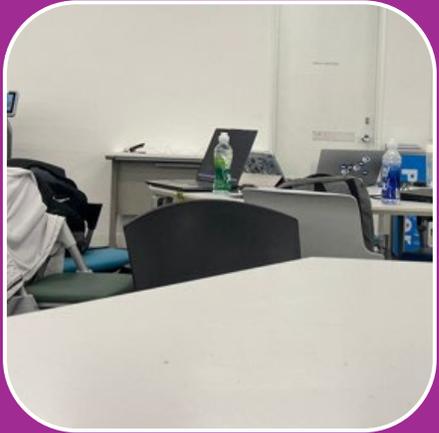


請不要將食物帶入圖書館
食物殘渣會引來老鼠
老鼠會在圖書館學習知識
考上大學
接住取代你的PolyU學位

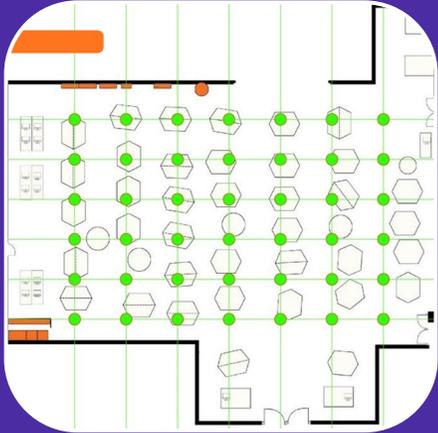
Please do not bring food into the library.
Food scraps attract mice.
If mice get into the library,
they might study hard,
get into university,
and take over your PolyU degree.



The Issues Identified By Students In The 24-hour Study Centre



1. Seat
Hogging &
Food
Consumption



2. Library
Furniture
Layout



3. Signage
Design



4. Coloring &
Lighting



5. Atmosphere



1. Seat occupancy & food consumption: why??



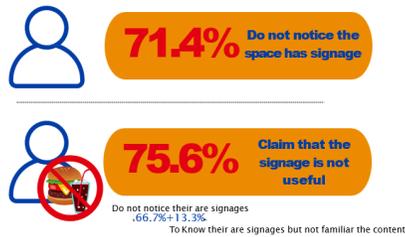


1. Seat occupancy & food consumption: why??

Survey and interview results from both teams:



To understand why people keep doing disruptive behaviour
Methodology: Survey



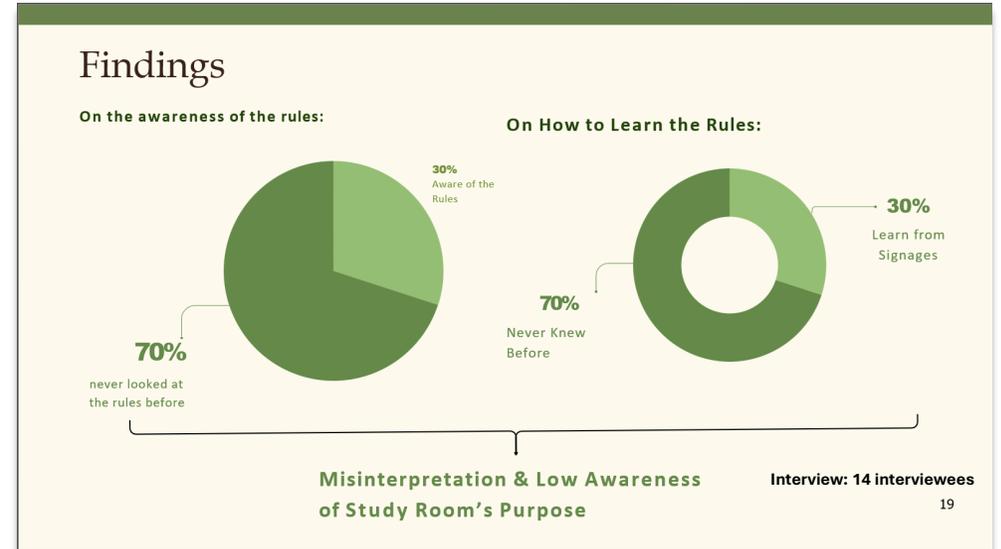
Insight

Students do not notice the signage in the 24-hour Study Centre and therefore **DO NOT** know the rules.

Most students do not understand the content of the signage due to **bad design** and **illegibility**.

Surveys: 43 interviewees

Team Avengers



Team 7-24

Affect Heuristics (情感共鳴) Presented by Team Avengers

“We often rely on our emotions/bias, rather than concrete information.”

- The 24-hour study center offers a relaxed environment for studying, but users do not notice that it is part of the library and subject to its policies.
- Users will focus on what feels right, rather than what they think is right.





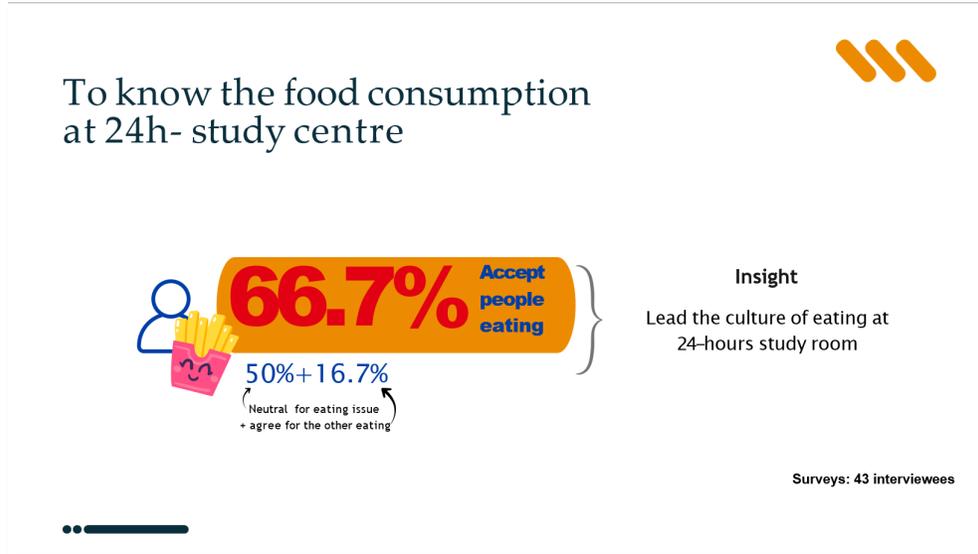
1. Seat occupancy & food consumption: why??

Bandwagon Effect (從眾效應) Presented by Team Avengers & Team 7-24

- “Monkey see, monkey do” type of behavior from students.
- Users observe other users’ disruptive behavior and **mimic it because they believe it is normal in this area.**
- There are **no penalties** for exhibiting disruptive behavior in the PolyU library.



Survey and interview results from both teams:



Team Avengers



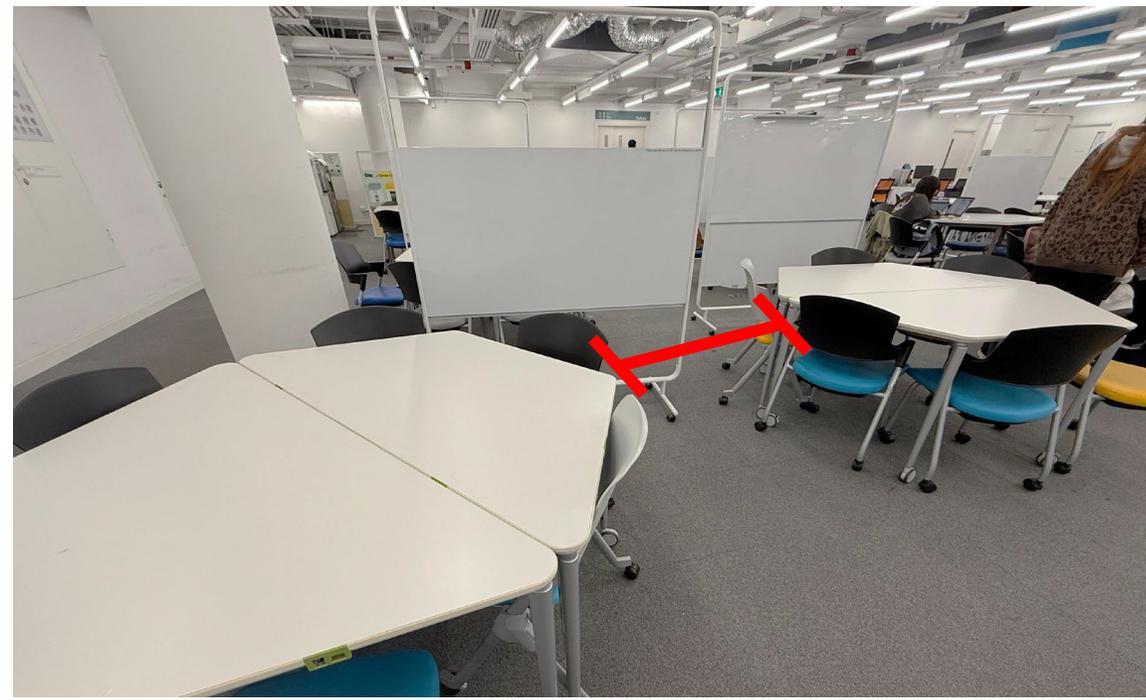
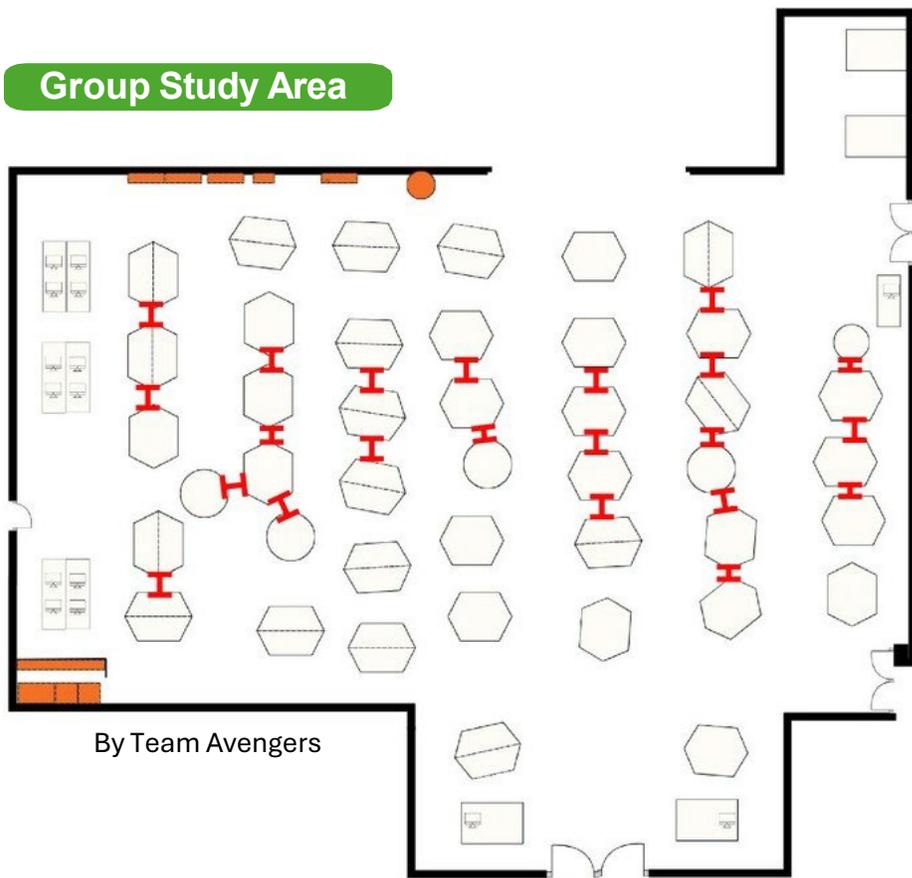
Team 7-24





2. Furniture layout at the group study area in the 24-hour study centre

Group Study Area



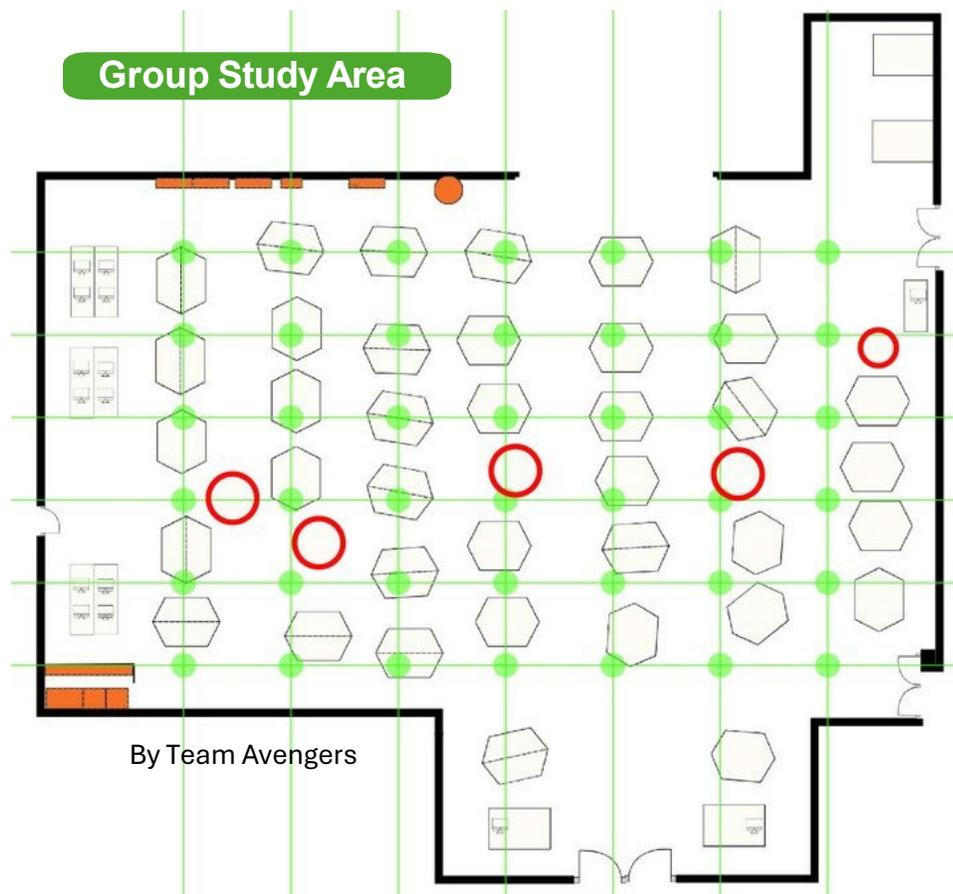
Users Feedback:

- Too noisy, crowded
- Difficult to focus

- There is insufficient space between tables, which affects other users when they discuss loudly in the area.



2. Furniture layout in the group study area



Users Feedback:

- Messy
- Disturbing

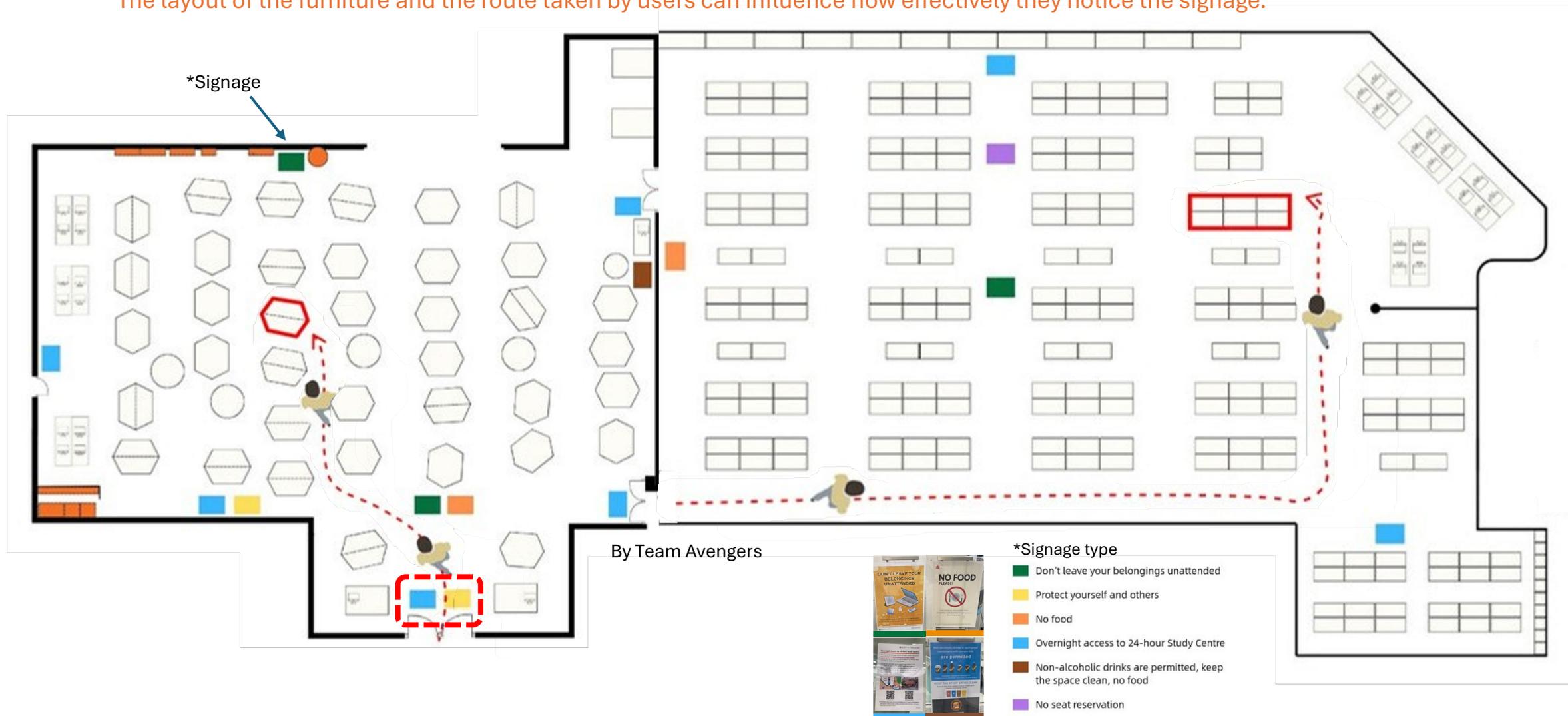
- The furniture layout resembles a grid structure, creating an uneasy feeling for users.



3. Signage placement

User Route

The layout of the furniture and the route taken by users can influence how effectively they notice the signage.

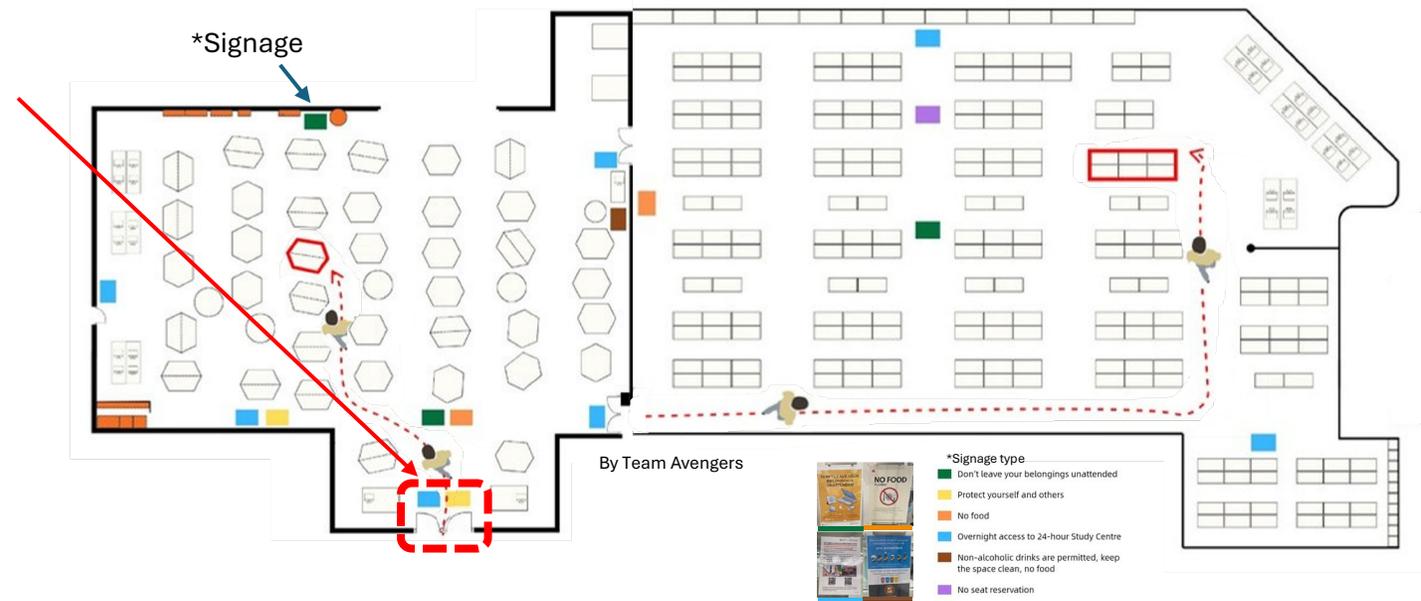




3.1 Signage placement



*Signage on the side of the door





3.2 Signage height and size

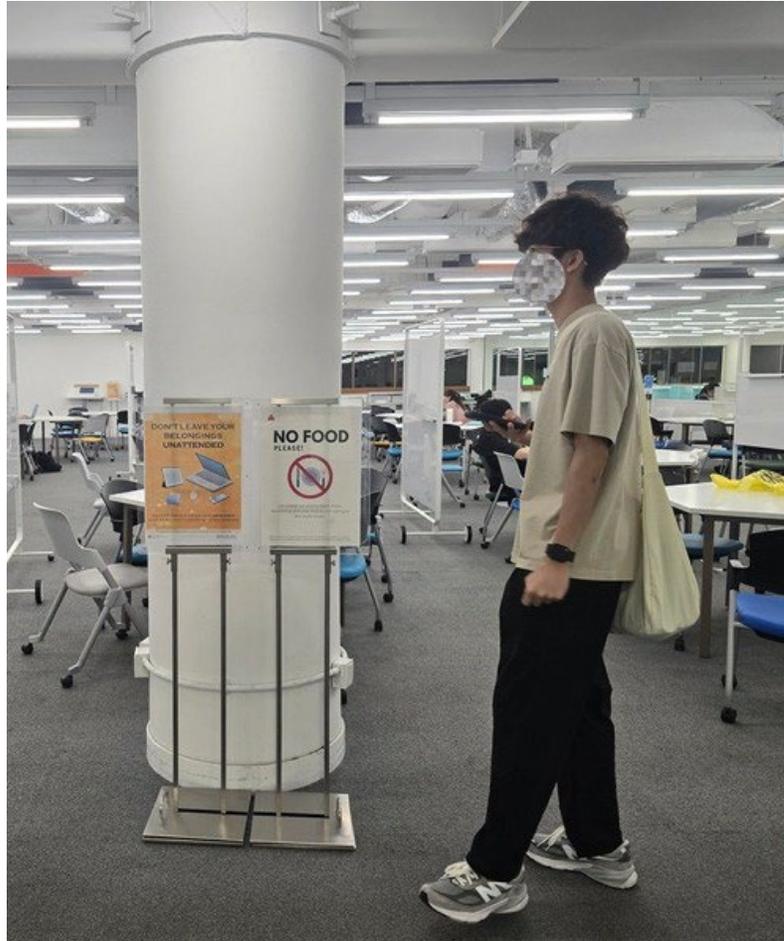


Photo By Team Avengers

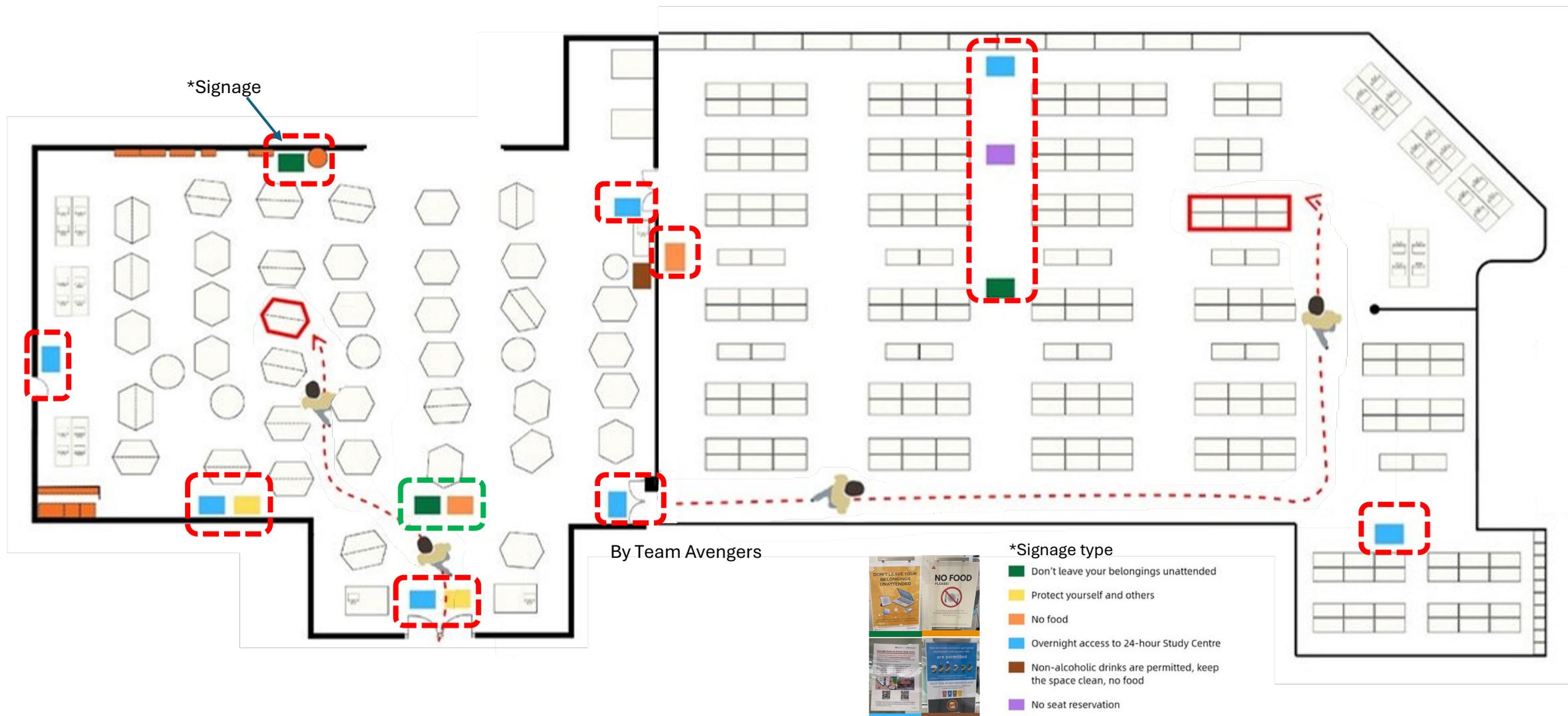
- The signage is not at **eye level**
- Average eye level: 152cm - 163 cm
- The size of the signage is not noticeable





3.3 Users cannot notice the signage

Signages are on the side of the 24-hour study center or off the user's route.





3.4 Difficulty in seeing the signage

Once users found a seat, the signages were blocked by the whiteboard and other users.



Photo By Team Avengers



3.5 Message hierarchy: overly wordy and not visually appealing

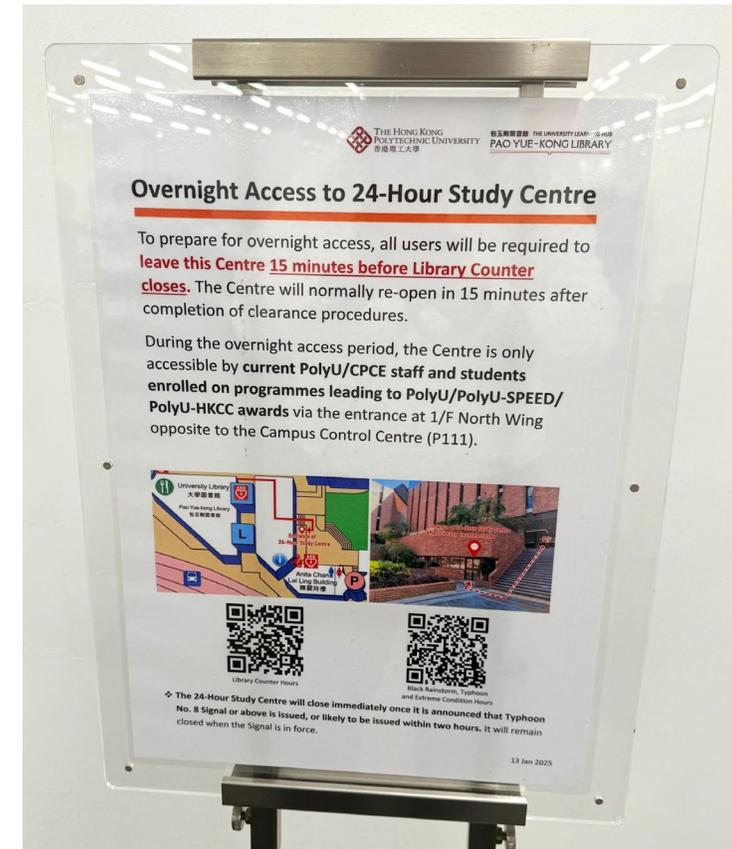
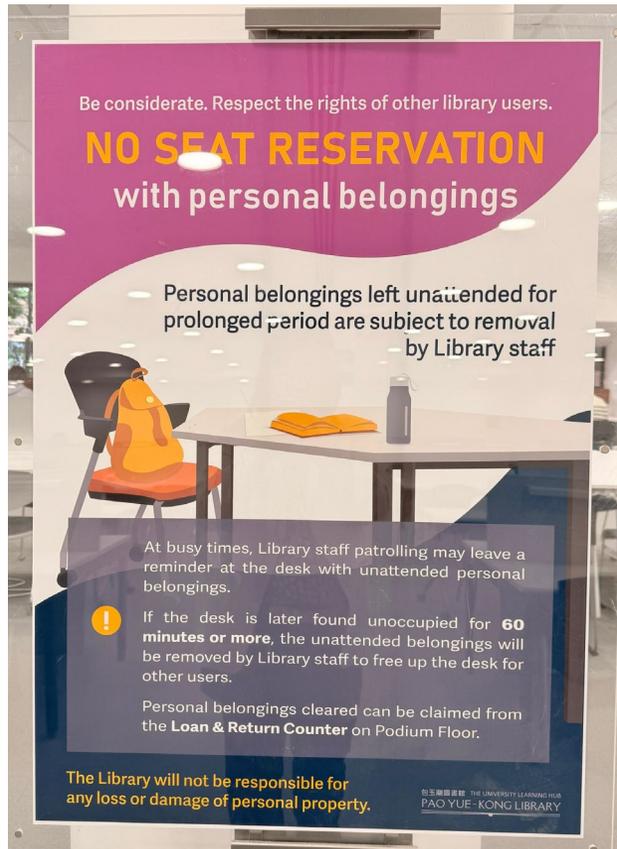


Photo By Team Avengers



4. Coloring & lighting

Situation:

- Mainly in grey, white, and black
- Strong white light
- Dirty walls
- Back door wall elements

Users feedback:

- Discouraging, boring, clinical, dizzy
- Lightings are too bright



Photo By Team Avengers



5. What is the overall atmosphere like in the study centre?



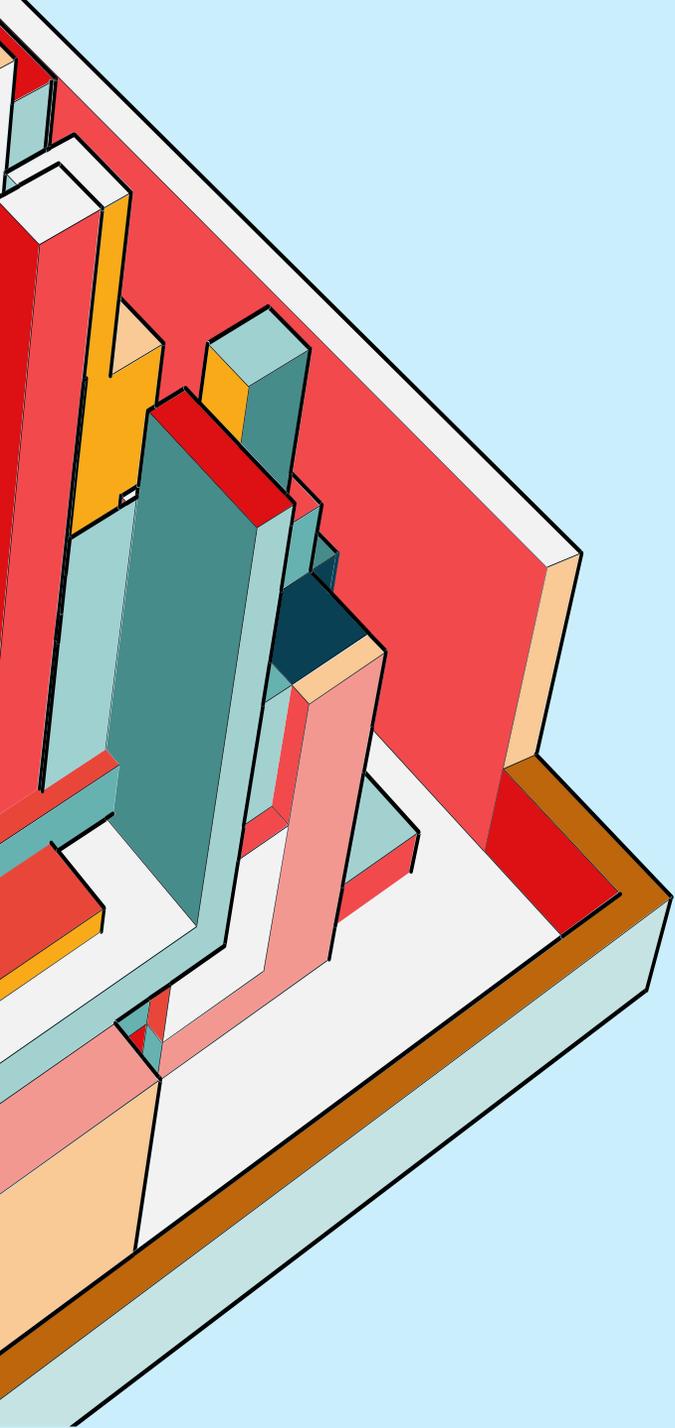
By Team Avengers

24-hour Study Centre
(Group Study Area)



Mahjong Parlour
(麻雀館)

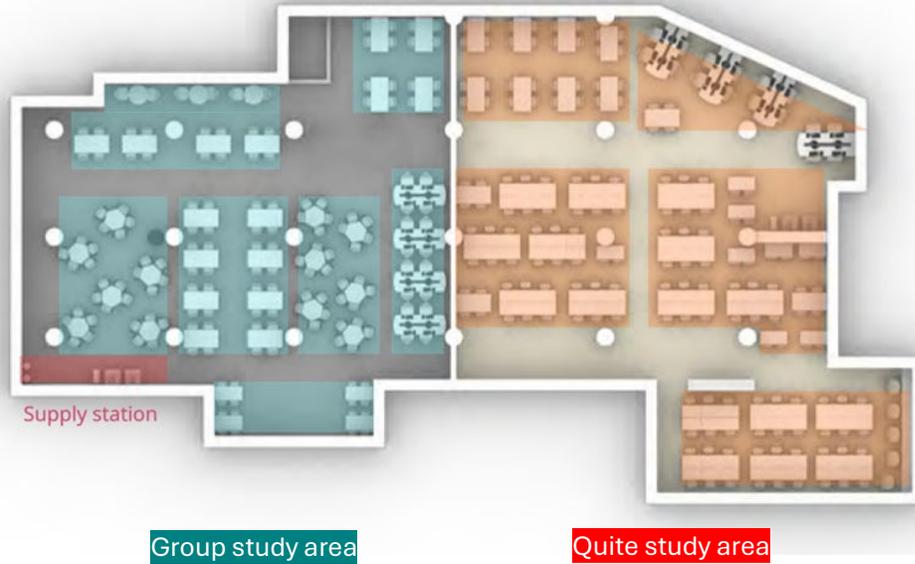
What Are The Solutions From The Design Students?





1. Improving zoning through effective furniture arrangement and lighting design

- Better circulation
- prevent moving furniture inappropriately
- More organized environment



By YEUNG Yan Yuet, Agnes



By LAI Pak Wang, Alex

- Using a more effective furniture layout makes the 24-hour study centre more comfortable for users and enhances circulation.
- Less like a Mahjong Parlour.

Using color lighting to divide the study area

- Warm color tone lighting for group study area.
- Cold color tone lighting for the quiet study area.



1.1 Installing comfortable lighting



By YEUNG Yan Yuet, Agnes

→ Reduce the rows of light at the Group Study Area

→ Light intensity

500lux – 600lux

→ Use neutral white light

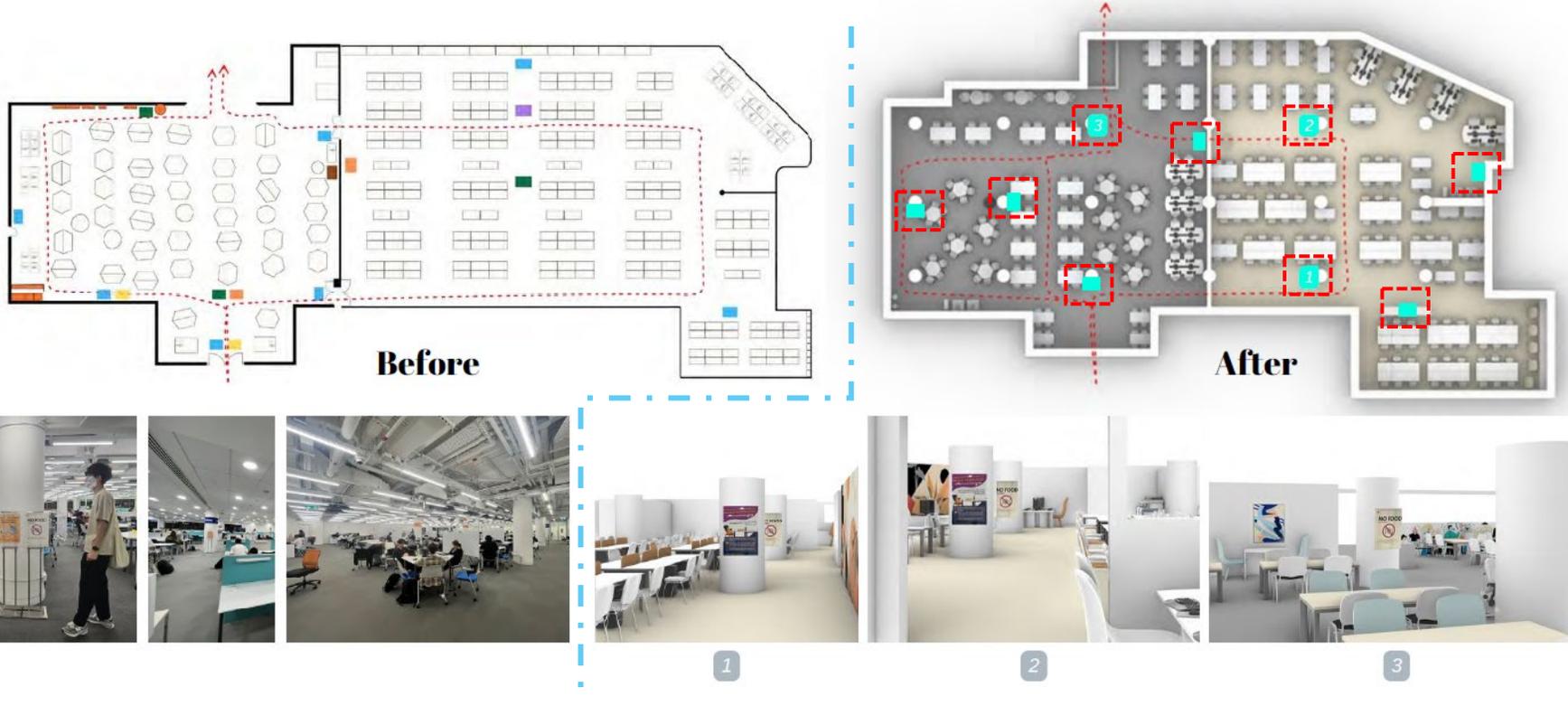
3500k – 4000k



2. Better furniture layout, create better circulation

Recommendation for placing signage to improve awareness of library policies

- Improved visibility of signage
- Signage becomes more noticeable when users are seated.





3. Signage designs

Less wording, clearer visual messages



By CHEUNG Sin Ying, Helen



By LAI Pak Wang, Alex

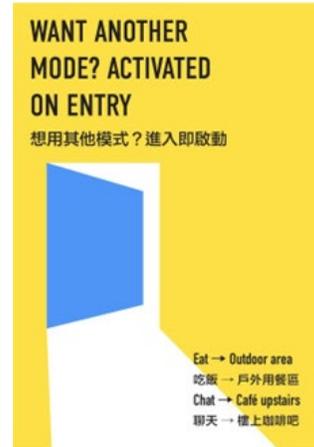
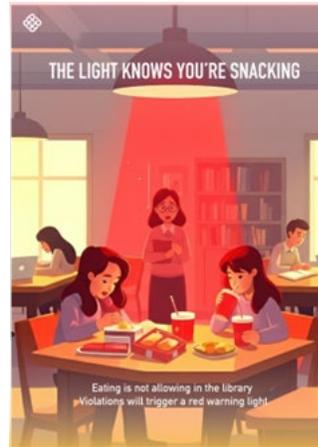


Table tent by CHAN Natalie



By HO Man Lai, Edgar





4. Create a colorful environment for less psychological repression

To establish a relaxed, focused, and peaceful study environment.



Before



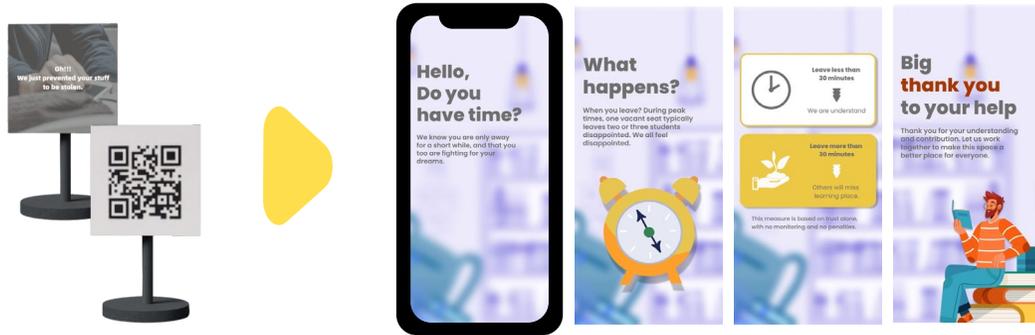
After





Extra: More interesting design solutions

A Reminder through the QR code and App



By CHUI Ka Hei, Tony

Free snacks with reminder



Interactive signs printed on a roll of tissue remind students not to eat in the library



By Tse Ho Sze, Natalie



By WOO Tsz Yi, Cheery



Extra: Other design solutions using technology

Using Simple Design Technology To Achieve Effective Results

Funny pop-out reminder through connecting PolyU WIFI service

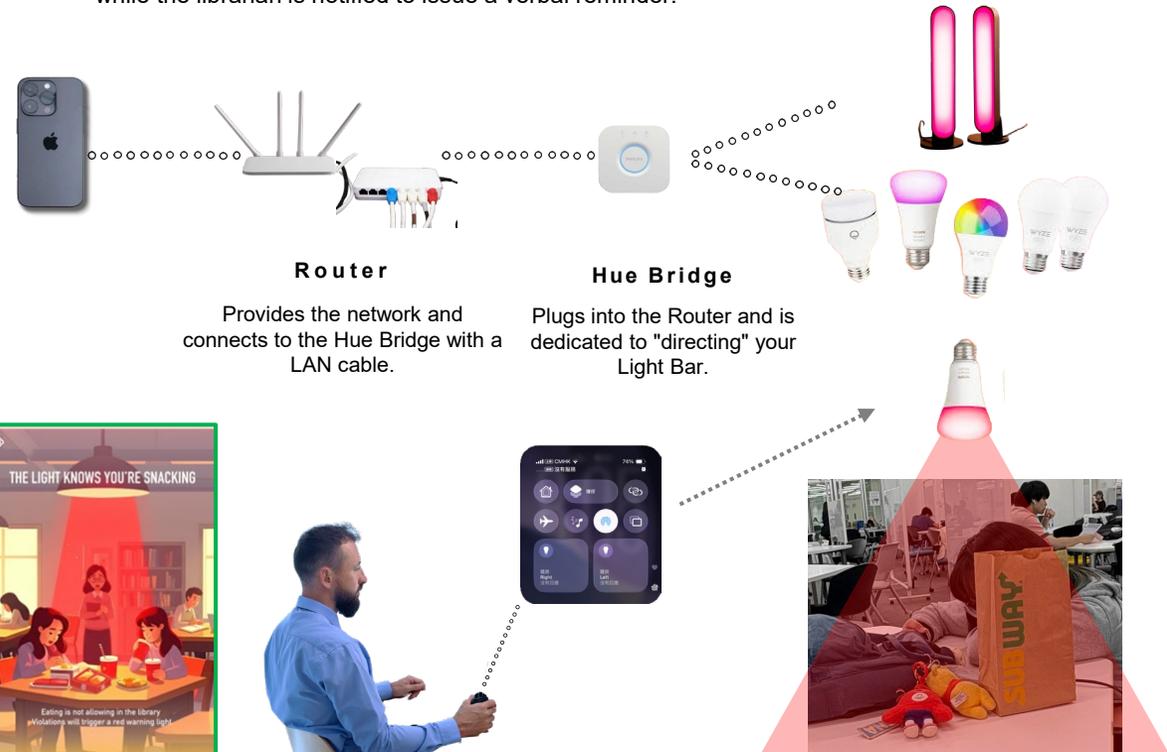
- A funny pop-up reminder to remind users about the library policy and rules.



By LAW Hau Ying, Venus

Lighting system for alerting users

- Warning mode — the red and white lights flash alternately to signal inappropriate behavior.
- Alert mode — the light stays solid red as a direct warning to the user, while the librarian is notified to issue a verbal reminder.



Poster For The System

By LAI Pak Wang, Alex



Project Opportunities And Challenges

Opportunities:

- Integrating design students into the library team opens the door to innovative perspectives and fresh ideas. They are trained to understand others' needs and develop creative solutions, enabling them to approach library challenges in a unique and enriching way, bringing diverse insights to the project.
- Gaining insight into what the library users' hidden opinions are, which can not be obtained from a formal survey.
- Enhance library services and policies by integrating user feedback from project surveys, interviews, and observations, as well as evaluating design students' prototypes and design solutions to better understand the needs of library users.

Challenges:

- It may not be able to implement immediate changes within the current library infrastructure.
- Some of the students' design solutions might not be suitable for use in the library setting.



Honoring Our Students, Instructor, and School of Design

Subject: SD4002 Cooperative Project (2025)

Project Name: User-centric Libraries: A Sustainable Future through Innovation, Technology, and Collaboration



Field visit group photo at WeWork offices in TaiKoo

Team 7-24

WONG Hoi Wing, Harry
IP Tsz Kin, Kin
TSE Ho Sze, Natalie
CHAN Natalie
HO Man Lai, Edgar
LAI Pak Wang, Alex
LAW Hau Ying, Venus

Team Avengers

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HUI Pui Chi, Pui
YEUNG Yan Yuet, Agnes
CHUI Ka Hei, Tony
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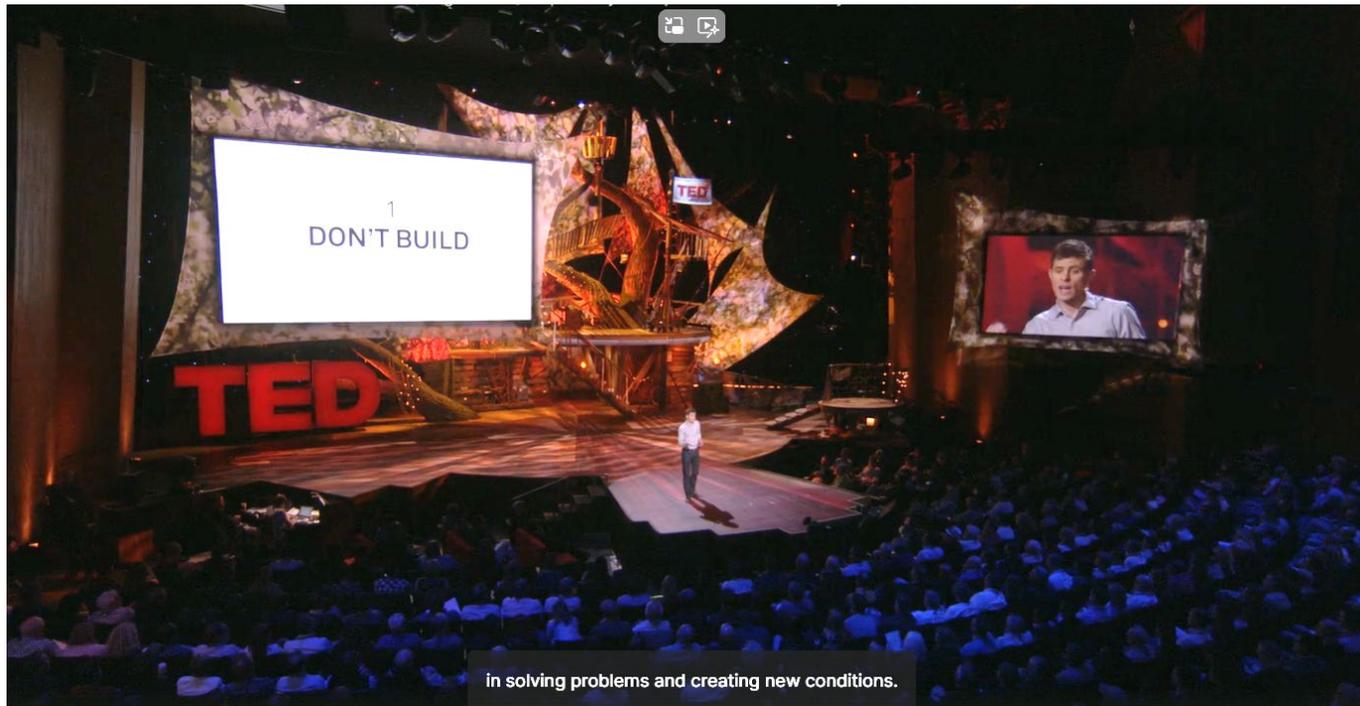
POLYU DES'GN

Thanks:





Wrap Up



Key Concept:

- The best design solution may not be a physical object but rather a change in systems or behaviors.
- Focus on solving problems and creating new conditions, rather than resorting to building construction as a solution

Parvin, A. (2013, February). *Architecture for the people by the people*. TED. [starting 02:50 - ending 03:51]

https://www.ted.com/talks/alastair_parvin_architecture_for_the_people_by_the_people



Latest Update

- Installing some new tables in the quiet study area



Environmentally-centered behavior

User test (Total 10 user)

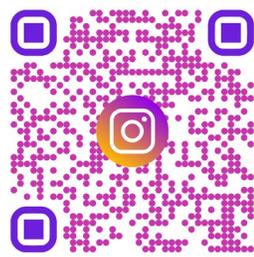


Based on the design solution by IP Tsz Kin, Kin



Thank You

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