

# Teaching the final-year Nursing students with Case-Based Learning (CBL)

Innovation and Effective Teaching  
during COVID\_19

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# Sharing Content

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- Introduction of CBL
- CBL in N&HS
- How CBL is conducted?
  - CBL Process
  - Modifications during the pandemic
- Challenges & Students' feedback



# Case Based Learning (CBL)

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- A form of PBL
- Guided enquiry
- Designed to engage students in discussion of specific scenarios that resemble real clinical cases

# PBL vs CBL — an example

— POP cast

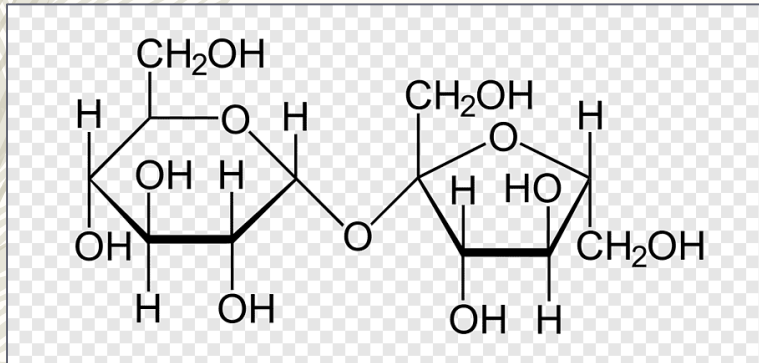


# PBL VS CBL

## In PBL

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- “Problem” is presented
  - POP cast
- Students are allowed to have free flow of ideas & discussion





# PBL vs CBL

## In CBL

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- A “case” is presented
- Discussion is guided, depends on your disciplines of study
  - Medical students
  - Physiotherapy students
  - Nursing students
  - .... etc



# When & Why conducting CBL?

## School of N&HS

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- Two BN final year courses
  - BN (Hon) General Health Care/ BN (Hon) Mental Health Care
- Goals:
  - Integrate theoretical knowledge & skills learnt in the past few years
    - *Bridge the gap between knowledge and practice*
  - Strengthen students' problem solving, clinical reasoning and decision making abilities
  - Prepare the students to become a registered nurse

# Who conduct CBL?

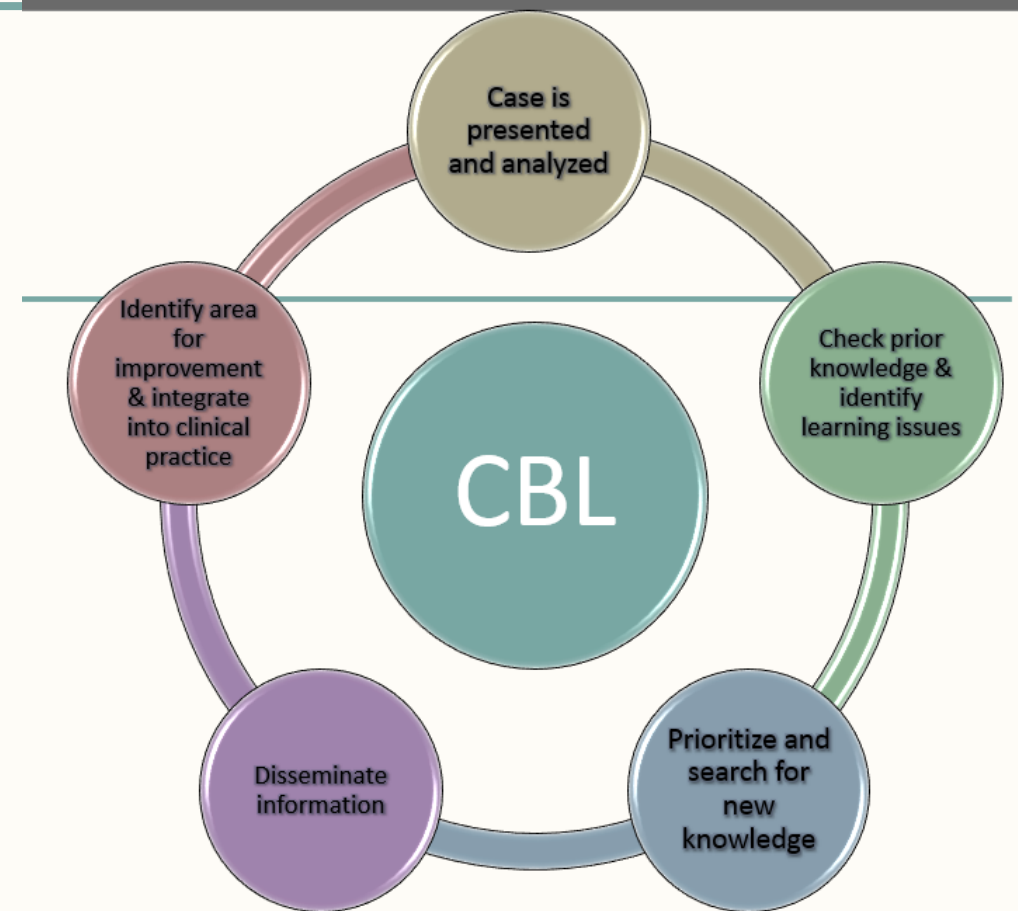
- Students
  - Leading roles
- Teachers
  - Become facilitators



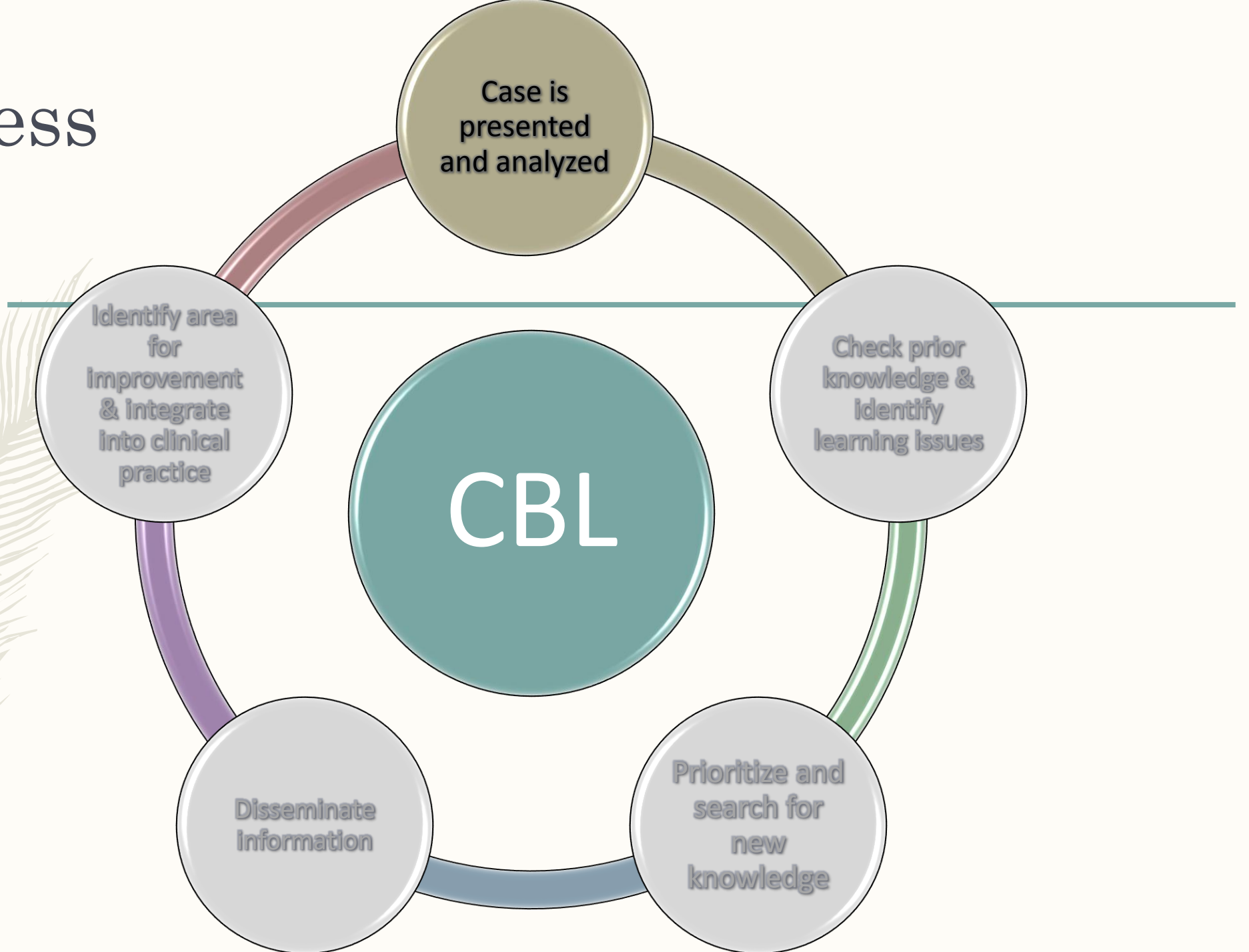


# How to conduct CBL?

- Form small group with ~10 students/ group
- CBL process

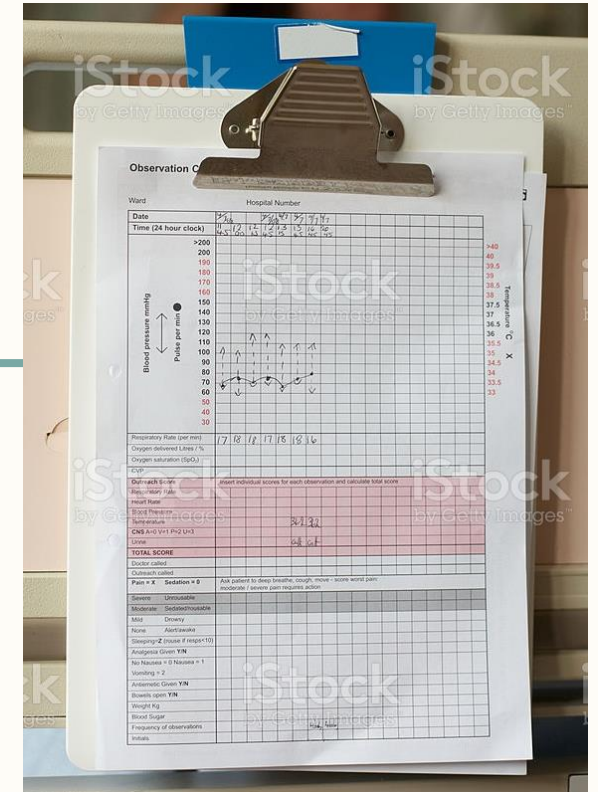


# CBL Process



# Case

- Case is presented
- In a form of scenario
- Resemble a real clinical case as much as possible
- *Patient's chart*




Admission Note

# Progress sheet

## Observation Chart

## Intake & Output C



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THE HONG KONG  
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香港公開大學醫藥學院 School of Pharmacy and Health Studies

The Hong Kong Open University Hospital

**Fluid Intake and Output Chart**

Case No.: ID11234567890

Name: Wong Heung 黃鴻

Sex: M Age: 67

INTAKE (ml)							
Date / Time	IV Fluids	Additive/Dosage	Given by	Checked by	By Mouth / Tube / Feed	Amount	Time / No.
12/9		<b>NPO except med</b> <b>NS Q5H x 2, then Q4H prn</b>					
1800	NS	-200				150	
1700	5%G		99	99			
1845	NS	500	99	99			
		<b>NS Q4H prn</b>					
2100	NS	500	78	78			
13/9							
0045	NS	500	78	78			
		<b>0.5N - 20mmol/L KCl prn Q4h prn</b>					
0230							
0230	D5	500	78	78			
Total						1200	

**Total Input**

Daily Total **2350** ml

**Total Output**


Daily Total **1200** ml

**Balance**

**+ 1150** ml

# Medication Administration

## Lab reports



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課程及健康學院 School of Nursing and Health Studies

The Hong Kong Open University Hospital

Location: HW12345678(9)

Name: HKOUH/ Med

Sex/ Age: M/ 67Y

DOB: 01/01

Reg. Loc.: HKOUH/ Med

Doctor: Lee, WW

Bed: 10

Clinical Details: DKA

Collected date: 12/9 12/9 13/9 14/9

Collected Time: 16:15 22:25 10:00 12:15

Arrive Date: 12/9 12/9 13/9 14/9

Arrive Time: 16:22 22:29 10:20 12:25

Request No.: C08170716 C0978542 C1403360 C1568756

Date: 12/9

Report: CXR

AP View

Lung mark

Heart size I

ROUTINE

Specimen Type: Plasma

Specimen	Value	Reference range	Units			
Sodium	150	147	140	143	135-145	mmol/L
Potassium	5.2	4.8	4.2	4	3.5-4.5	mmol/L
Urea	10.2	7.1	6.5	7.3	3.5-8.0	mmol/L
Creatinine	123	101	87	96	60-105	umol/L
Protein, Total	67				60-78	g/L
Albumin	46				35-50	g/L
Bilirubin, Total	12				< 19	umol/L
ALT	68				56-115	U/L
ALP	44				= 57	U/L

\*\*\*\*\* End of Report \*\*\*\*\*

This is a completed cumulative report and should be retained permanently

Report Date & Time: 14/9 14:50

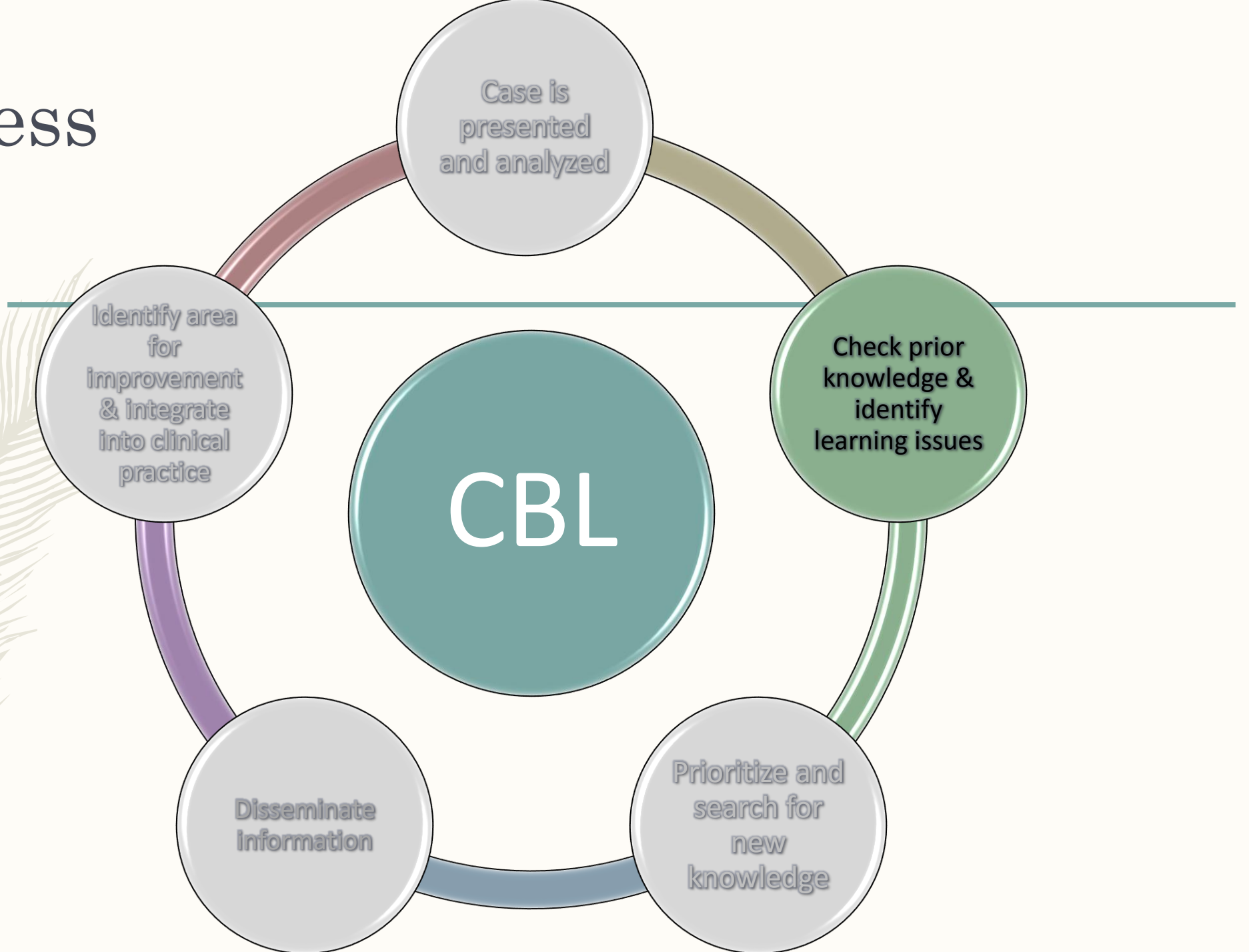
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# CBL Process





# Guiding questions



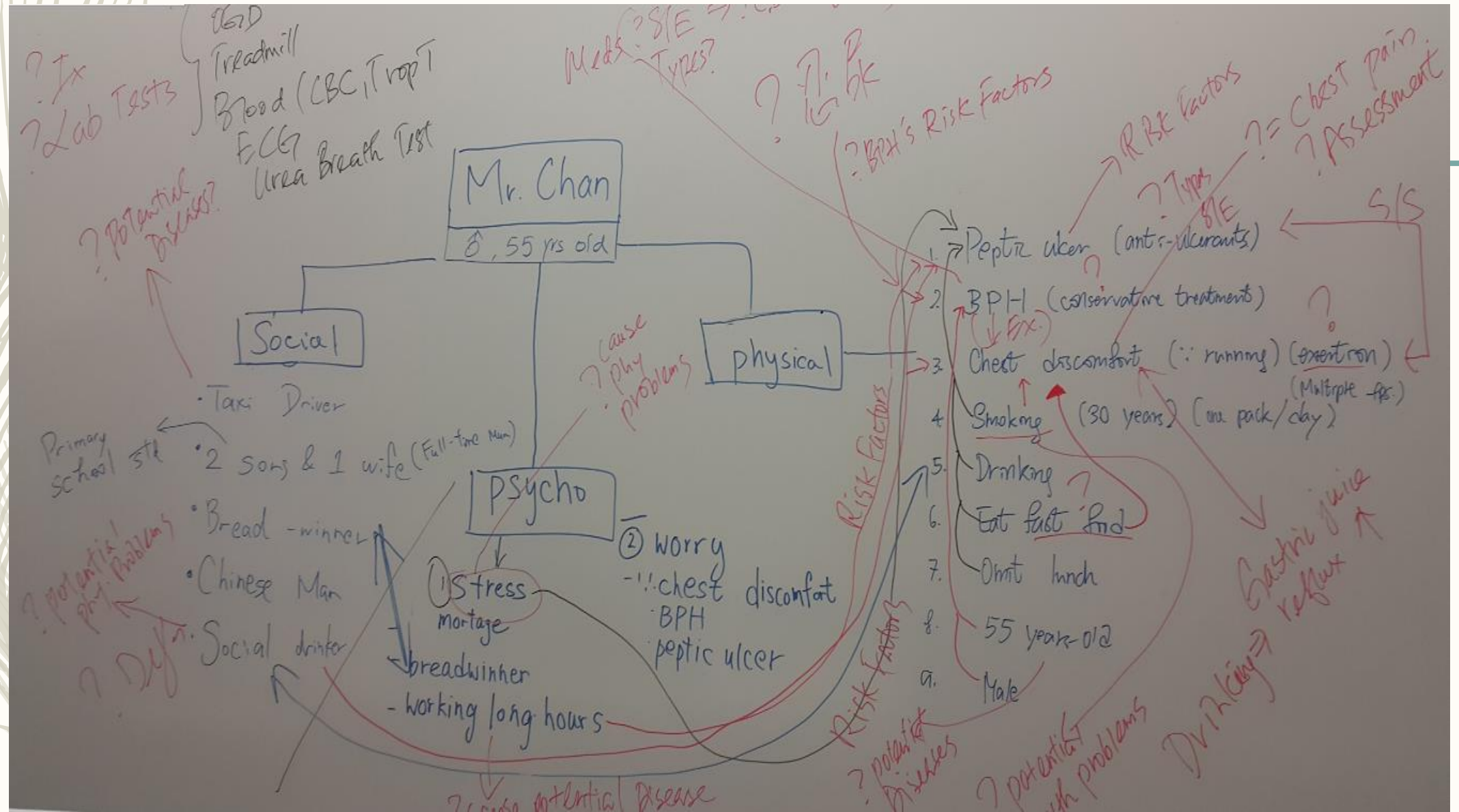
- Prompt students for the discussion
  - Related to physical, psychological & social themes
- Provide guidance/ stimulations
- Allow the students to lead the discussions
- Drawing of mind maps are encouraged


# Student Discussion





# Students' sketch of the mind map





# Challenges come..... during class suspension days

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- Difficulties
  - How to engage students?
  - How to be interactive?
- Alternatives:
  - ZOOM
  - Student Response System (SRS)
  - Google Excel Spreadsheet

# Use of Excel Spreadsheet in Google

Case 2\_T04\_1904 ☆ 📁 🔄

檔案 編輯 查看 插入 格式 資料 工具 外掛程式 說明 上次編輯是在數秒前

100% HK\$ % .0 .00 123 預設 (Arial) 10 B I S A

	A	B	C	D	E	
1		Clarification of terms/ Known	Not Known/ Not Clear	Categorization of Terms (Physical/ Psycho/	Inter-relationship	
9	(A) TNG	Glyceryl Trinitrate (vasodilator) treat angina pectoris and chronic heart failure sublingual 5mins for 1dose	alternatives? unknown interrelationship wif smoke/ alcohol	physical		
10	(B) JVP	Jugular venous pressure, reflect the pressure in right atrium		Physical		
11	(B) CP0	Chest pain no				
12	(B) dyspnea					
13	(B) hypokinesia	type of movement disorder, too little movement	intervention? is it reversible			
14						
15	(B) Trop I	Troponin I is a type of proteins that will be found increasing if cardiac muscles break down; normal range: < 0.12 ug/mL; 2-3 tests are needed to r/o MI; Q6-8H	why trop is better than the other cardiac markers? different between Trop I & trop T?			
16	(B) Echo	echocardiogram (echo) is a graphic outline of the heart's movement.	how to interpret? other type of echo? pros and cons?	phy		
17	(B) T&S	Type and screen				
18	(A) LV function, LVEF	Left ventricular ejection fraction				
19	(A) Hytrin	BPH, hypertension	why nocte			
20	(C) ZOCOR		why Nocte	physcial		
21	(B) hilar mass	The hilum of the lung is the wedge-shaped area on the central portion of each lung, located on the medial (middle) aspect of each lung.	indication of CXR, interpretation of CXR			
22						
23	(A) social drinker <-> taxi driver, BPH, high cholesterol	social driver	def. of social drinker? how drinking is related to taxi driver?	social, physical		



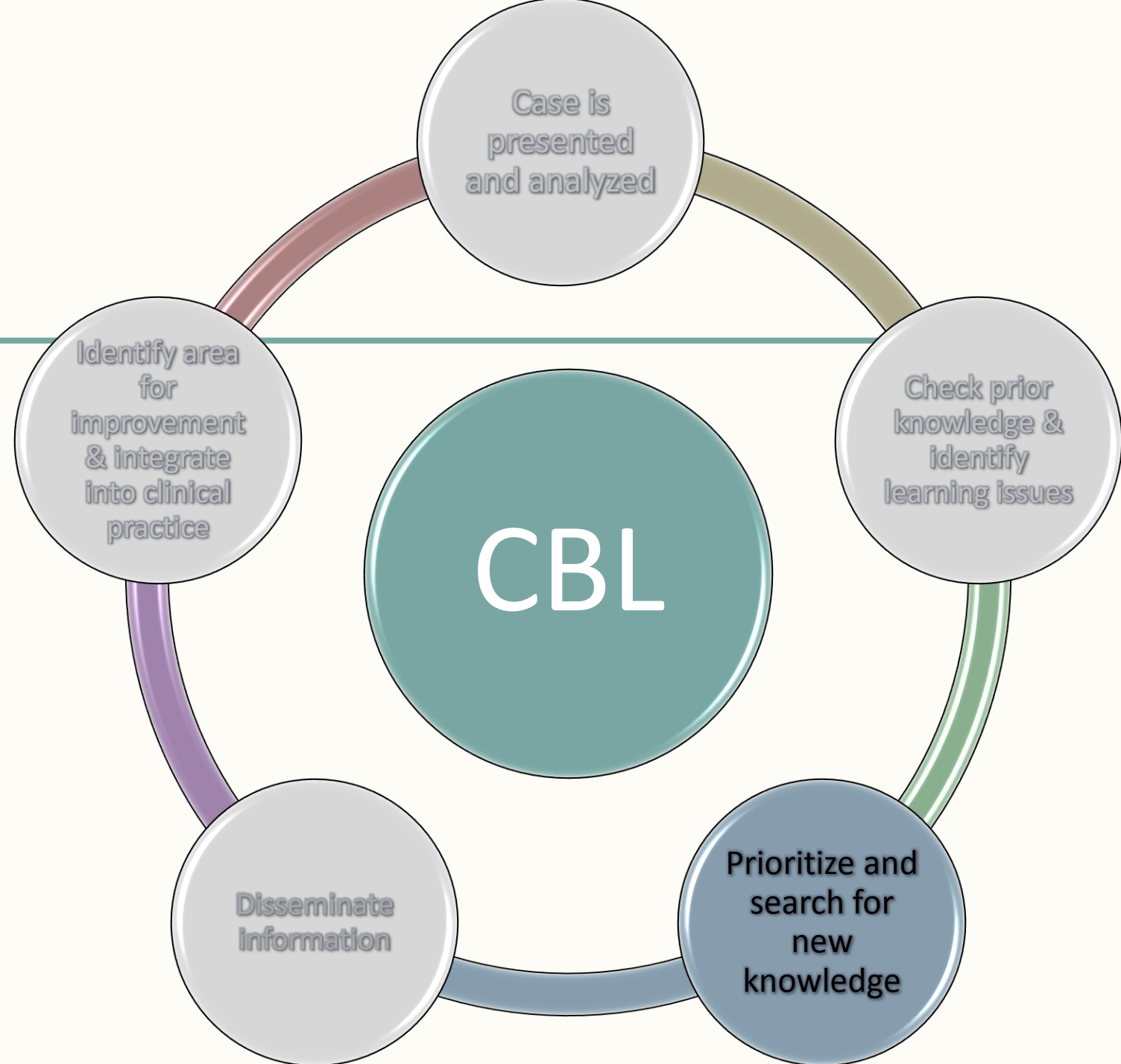
# CBL Process

- Student-directed Learning issues

- Group based issues

- Individual based issues

- *Driven by student's own interest*



# Learning Issues

S physical

1. Describe the potential problem for taxi driver.
2. Describe the measures for Mr. Chan to prevent recurrence of coronary vessel blockage.
3. Describe the types of bed rest
4. Describe the criteria for choosing treatment of ACS.

P

- ① Post PTCA care and its rehabilitation education for Mr. Chan.
- ② Describe types of PCI and its related care
- ③ Investigate ECG types and decide the most suitable one for Mr. Chan

A

- ① Describe the types of contrast, its mechanism in Mr. Chan's body and related nursing care
- ② Describe the criteria of choosing CABG and PTCA <sup>as for Mr. Chan</sup> and their related nursing care
- ③ Compare the nursing care between CABG and PTCA

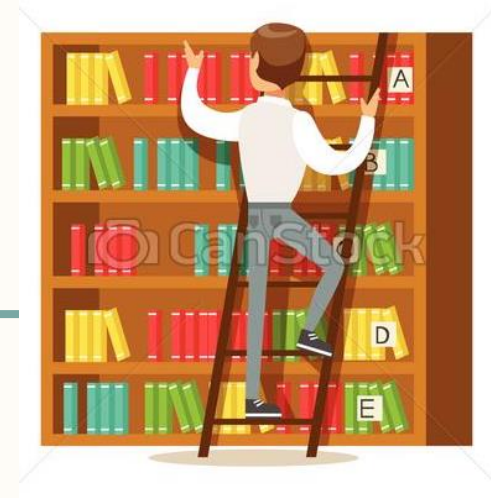
# During class suspension days

## Learning Issues

	I	J	K	
	Learning Issues			
	A	B	C	
	1. The relationship between smoking, alcohol consumption, fast food and Peptic Ulcer	Fast food eating and alcohol drinking are the main reasons for Mr. Chan combined hyperlipidemia	(C1) Aspirin is contradicted with Mr. Chan's condition of peptic ucler	
	2. The suitable intervention for Mr. Chan, PTCA/PTCS	Conservative treatment is suitable choice for Mr Chan to treat BPH	(C2) Transthoracic echocardiogram is suitable for Mr. Chan's case	
	3. TNG is more suitable than Imdur for relieving Mr. Chan's chest discomfort	PT, INR, APTT are not enough for assessing Mr. Chan clotting profile.	(C3) PTCA is suitable for Mr. Chan's situation	

# Information search

- Search during/ after class
- Via means of :
  - Library search/Internet search/Text books/Notes
- Immediate sharing is encouraged
- Allow challenging questions
  - Critical thinking



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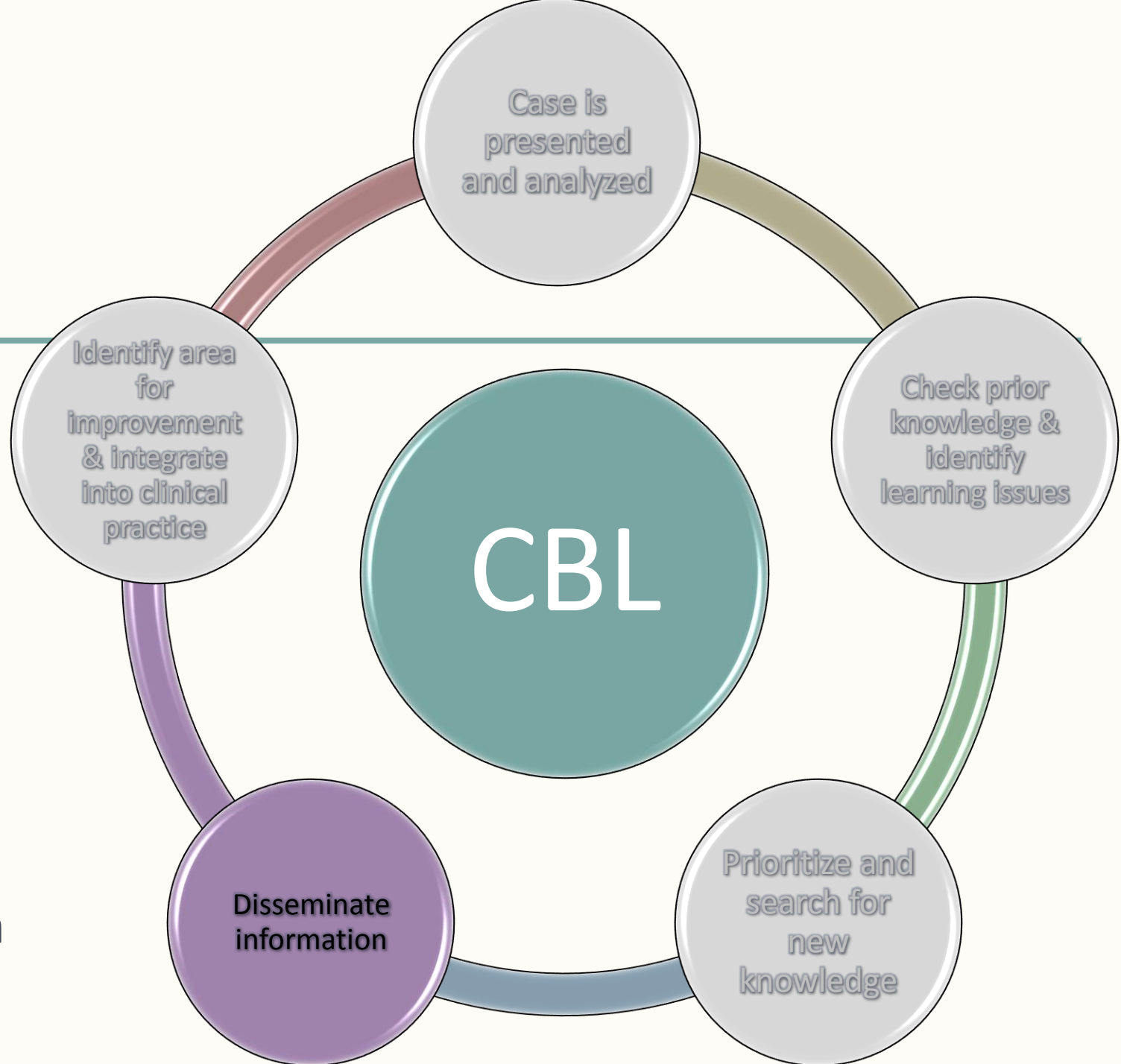




# CBL Process

## – Dissemination

- In any format: PPT/ Role play/ Video ...etc
- Presentation skills
- Cooperation/ collaboration





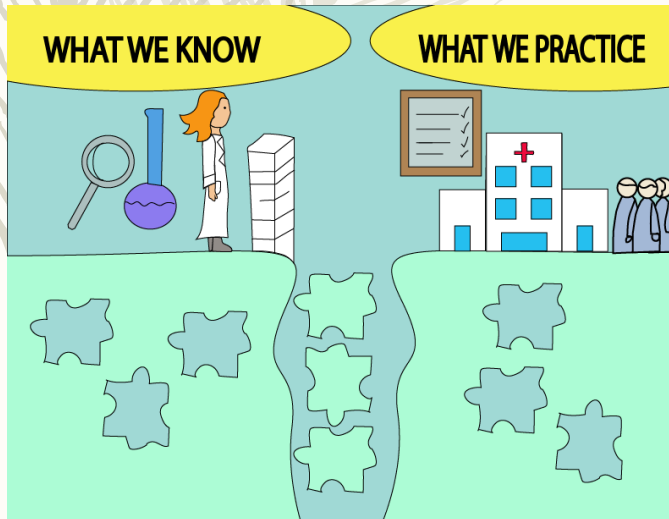
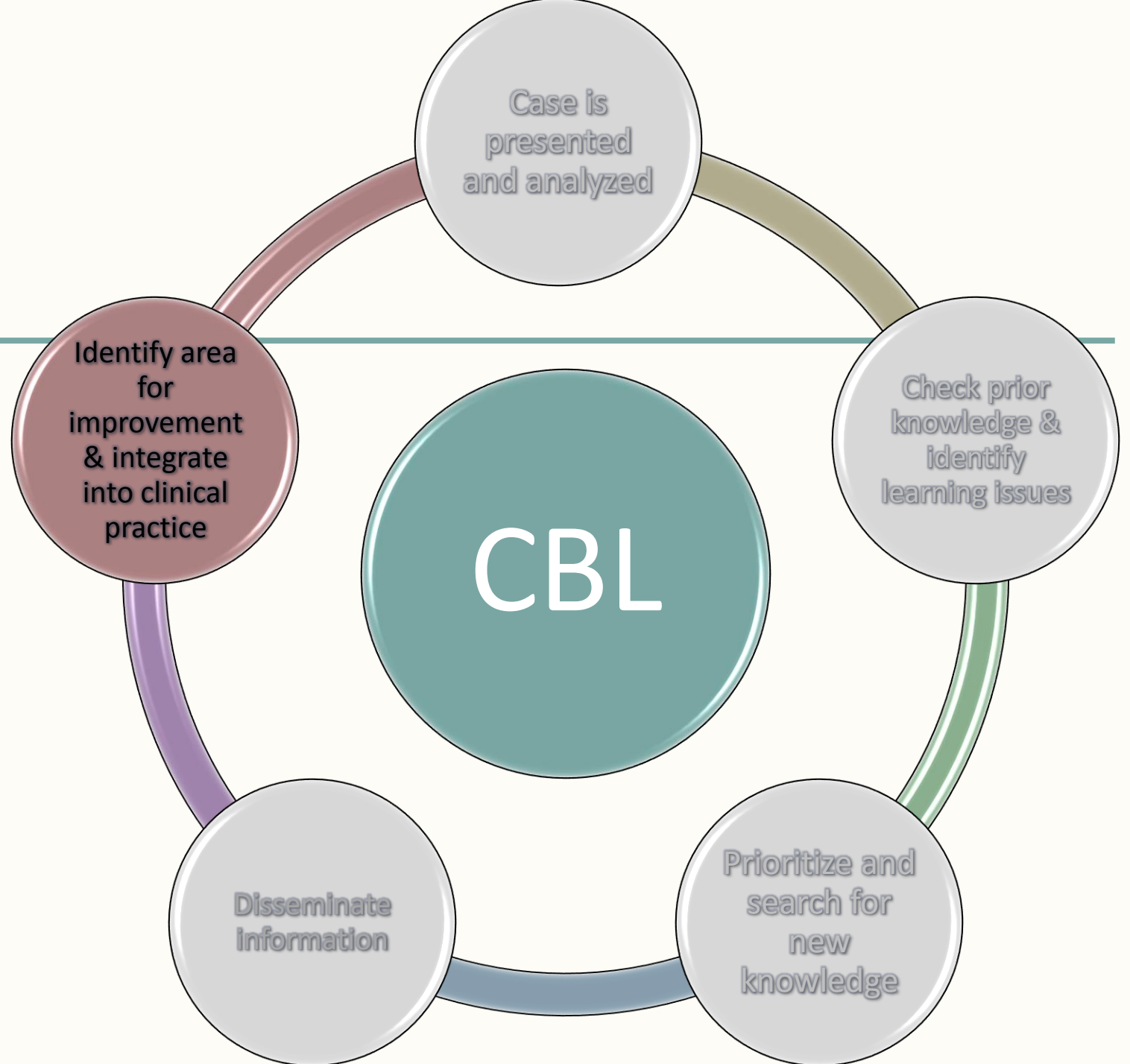
# Information Dissemination (Sharing)

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- F2F: In tutorial rooms
- Online mode: Via ZOOM
- Immediate Qs are encouraged from students
- Immediate feedback from facilitators



# CBL Process





# The advantages of using CBL

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- Help learners to focus on key points
- Improves skills, such as
  - Communication & collaborations skills
  - Information searching skill
  - Critical thinking
  - Presentation skills...etc
- Better retain and consolidate knowledge learnt
- Allow individualized learning, thus promote motivation



# Challenges of CBL

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- Change of roles
  - Teachers → facilitators
  - Students → from passive to active
- Preparation work
  - For teachers: before tutorial
- During F2F/class suspension
  - Interactive
  - Student engagement



# Students' Feedback on CBL

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- Enjoyed the discussion and sharing
- A good consolidation of the past knowledge
- Can train up communication skills and information searching skills
- Can learn more things that are beyond textbook
- Stimulate critical thinking
- It should be conducted in junior years





Thank  
You

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