

Case-based Blended Learning (CBBL) Pedagogies for Pre-service Teachers: Building a Community of Practice in Higher Education Settings

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Objectives

Experiment, document and refine CBBL pedagogies

Identify patterns and good practices

Engage participating faculty members

Cultivate a community of practice

Develop a training package

Experimentation – scale and scope

Semester I (trial run)

5 instructors

6 groups (239 students)

(4 BEd, 2 PGDE)

Semester II

11 instructors

13 groups (528 students)

(1 HD, 12 BEd)

What is Case-based blended Learning (CBBL)?

- a **pedagogical innovation that emphasizes the strategic integration of cases into a blended learning (BL) learning environment**
 - i.e. how to blend face-to-face instructions with online tasks strategically and systematically in support of case-based learning
 - to address issues of student engagement and learning, especially conceptual understanding
- a **purposeful strategy to foster a new understanding of BL from a pedagogical perspective** and discover many possibilities with a creative lens

Why CBBL?

- effort to improve learning and teaching in higher education tends to focus on technology and student outcomes.
- limited attention on course content and context, not to mention the pedagogy of *what, how, why* and *when* in a BL environment



Challenge of developing CBBL

Challenge 1:

It is challenging to know whether case materials are good enough for CBBL.

- **Good case materials** – highly important to integrating online and face-to-face components
- Authentic examples – connect students to their daily experience
- Challenging thinking – reveal complexities and ambiguities

Challenge 2:

It is challenging for first timers to prepare CBBL lessons.

- Importance of **prior experience / knowledge** (e.g. case development)
- Attending to the **conceptual elements** in CBBL design

Challenge 3:

It is challenging to switch the focus of blended learning from technology to pedagogy.

- CBBL – emphasis on **pedagogical goals and strategies** rather than high technology
- Purposeful pedagogical plan to integrate:
case + online + face-to-face + technology

Challenge 4:

It is challenging to decide between theory- and practical-based content for CBBL.

- Theory-based content – focus on **higher-order/conceptual thinking, the main goal of CBBL**
- Practical-based content - focus on skills e.g. writing a lesson plan, storytelling, etc., more limited in the use of cases



Theoretical framework

CBBL design

Three-step process of CBBL (non-linear)

- 1. Selection of case materials**
- 2. Development of case materials**
- 3. Lesson delivery**

Three aspects of BL arrangements

- 1. Content**
- 2. Communication**
- 3. Construction**

(Kerres & De Witt, 2003)

CBBL design

1. Selection of case materials	Content
<p data-bbox="87 310 622 645">One key concept or few main conceptual ideas that are core to the lesson and that can contribute to the building up of new knowledge in students.</p> <p data-bbox="87 718 579 880"><u>Technology consideration</u> case formats e.g. video, audio, or text</p>	<p data-bbox="662 310 1200 410">To make learning materials available to a learner.</p> <p data-bbox="662 483 1058 530"><u>Things to remember</u></p> <ul data-bbox="662 543 1336 1054" style="list-style-type: none"><li data-bbox="662 543 1336 645">• Facts or rules the learner should be able to recall<li data-bbox="662 658 1243 820">• Can be explicated and communicated by media or technological means<li data-bbox="662 833 1308 1054">• Specific information as a prerequisite for other communicative or constructive learning activities

CBBL design

2. Development of case materials

Good case materials that allow students to understand the complexities, conflicts, and ambiguities that exist in real life situations -- **multiple entry points** for students to engage in discussions and debates in relation to **the key concept / conceptual ideas** to be learnt.

Technology consideration

Various tools for creating online tasks to generate responses, peer interactions, etc., e.g. Google Form, Padlet, Mentimeter

Communication

To offer interpersonal exchange between learners or learners and instructors.

Things to remember

- Knowledge reaching a certain complexity
- Knowledge consisting of different competing concepts
- Requiring a deeper understanding of a theoretical framework
- Facilitating students to learn to formulate, express and discuss a personal point of view
- Facilitating students to learn to participate in discussions, formulate and receive feedback in discursive settings

CBBL design

3. Lesson delivery

Integrate all the four components together, i.e. case, online, face-to-face and technology, referring back to the **pre-set pedagogical goals** to construct specific pedagogical strategies.

Technological consideration

Setting-up online tasks with adequate classroom IT facility support

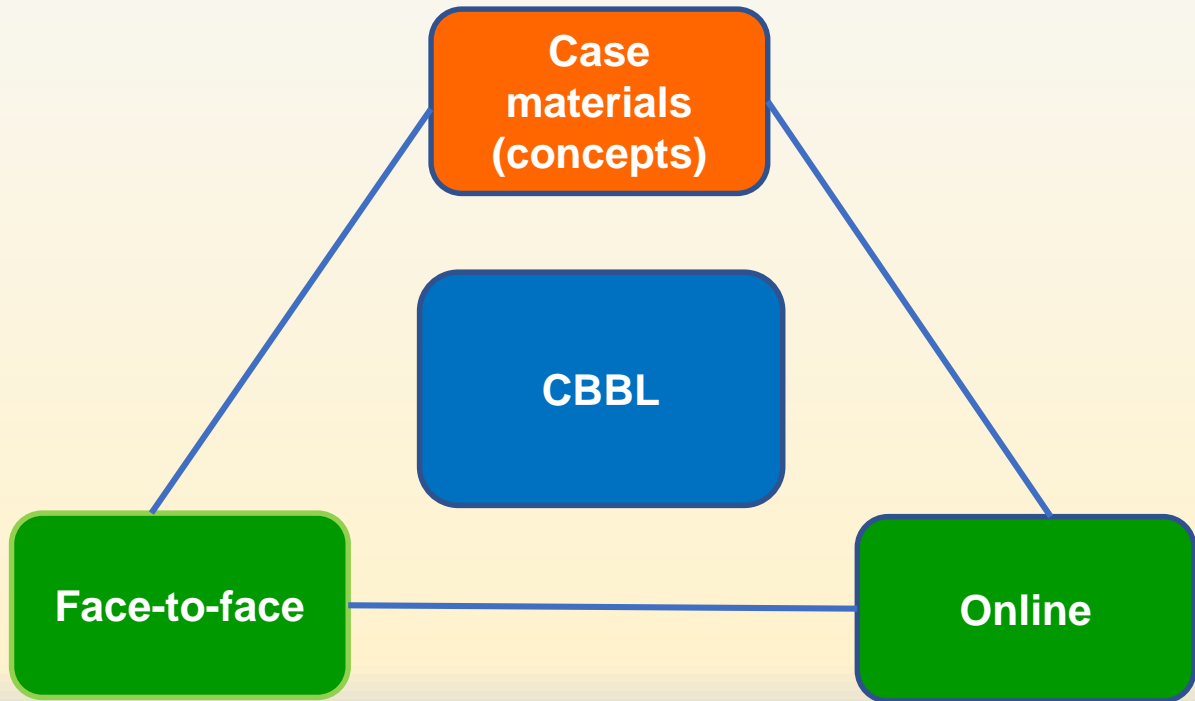
Construction

To facilitate and guide individual as well as cooperative learning activities to actively operate on learning tasks (or assignments) with different degrees of complexity (from multiple-choice to projects or problem-based learning).

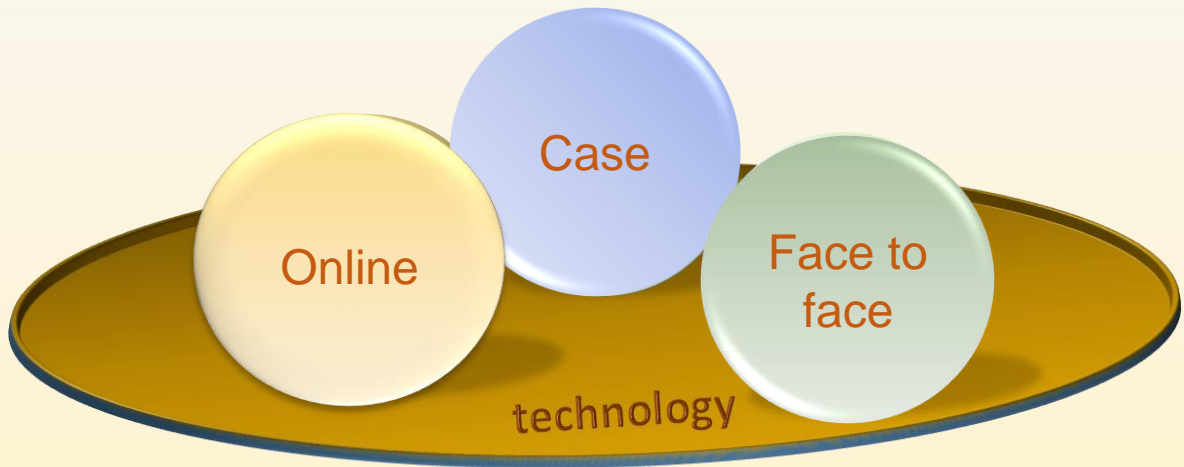
Things to remember

- Knowledge to be applied (not only to be recalled)
- Knowledge consisting of procedures that require practice
- Content including 'fuzzy' knowledge

Integration in CBBL



'Marbling' effects





Pedagogical Learning

1. Lesson design
2. Pedagogical richness

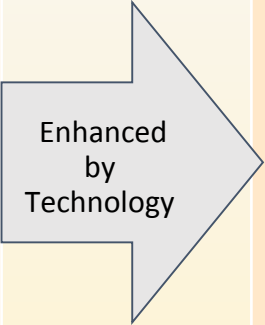
1. Lesson design

- a. Change in the concept of 'lesson'
- b. Case content

a. Change in the concept of 'lesson'

Traditional lessons

- Learning mainly comes from instructors
- Dominated by few students (raise hand and answer)
- Limited perspectives



Enhanced
by
Technology

CBBL lessons

- Learning from **all** students (e.g. online task responses)
- Communication happens among **all** students
- **Different types** of pedagogical strategies (e.g. pre-class / in-class / post-class online responses)
- **Broadened** perspectives

Change in the concept of 'lesson' → change in the mindset of lesson delivery → change in the means for student learning

Example

In the past	After CBBL experimentation (T9AIS2)
Lecture: teaching Tutorial: activity	Lecture: more interaction with students Tutorial: case analysis and in-depth discussion

CBBL (T9AIS1)	
Tutorial	Face-to-face: Video case posted to Moodle Online task (post-lesson): discuss curriculum definition + self-reflection
Lecture	Online task (during lesson) + face to face: Activity week experience of two schools + group discussion on Padlet, followed by analysis of online responses & self-reflection

b. Case content

- Good cases
- Embedding concepts
- Student prior knowledge
- Student and instructor feedback on case format

Sharpen focus
and broaden
perspectives in
discussions

Strengthen
links between
theoretical
concepts and
discussions

Good cases

Students	Instructors
<u>Concerns</u> <ul style="list-style-type: none">• Authenticity• Connectivity• Transferability (practical knowledge and skills)	<u>Emphases</u> <ul style="list-style-type: none">• Authenticity• Connectivity• Transferability (practical knowledge and principles) <ul style="list-style-type: none">• Complexity• Ambiguity• Openness (multiple points of entry)• Conceptual challenge• Human touch

Good cases

1. Present a **real incident** experienced by a serving teacher
2. Show **an ethical dilemma and diverse perspectives** involved in making professional judgement and choice of action
3. Students more concerned about **'solutions and skills'** (*how to tackle problems in the future*)
 - This may be related to students' **habits of learning** or the **absence of conceptual elements in the selected case**
4. Cases with less ambiguity are difficult to develop in-depth discussions.
 - e.g. 'too good/nearly perfect' or 'too bad' (Sfg4) - very obvious answer

Embedding concepts (not facts)

Example (T3.2)

Before class	In class	After class
<i>Online task</i>	<i>Face to face</i>	<i>Online task</i>
Watching a teacher movie + worksheet Students to identify social structures and emotional rules	Discussion and analysis of online responses + conceptual explanation on emotional labor and rules	Photographic journal Students to capture a visual metaphor to demonstrate conceptual understanding of emotional labor and rules

Student prior knowledge

- Prior knowledge enables students to participate in-depth discussion
 - Prior knowledge: code of ethics (reading in advance)
 - Face-to-face: Students analyzed a case in relation to the professional judgement and actions of teachers
- Comments from the instructor interview:
 - *without the code of ethics*: students focusing mainly on the well-being of the affected student in the case
 - *with code of ethics*: students analyzing the teachers' actions and making professional judgement based on the code of ethics

Student and instructor feedback on case format

Text	Animation	Video
<ul style="list-style-type: none">• high authenticity and connectivity helpful to conceptual understanding• Quick and efficient way to collect students' cases, increasing variation of cases• Less time to produce than videos• Higher confidentiality e.g. cases from student teachers• Need adequate time for students to 'digest' the text	<ul style="list-style-type: none">• Some students may think it is a make-up case, affecting authenticity• Highlight the issue in case	<ul style="list-style-type: none">• Visual and audio stimulation offers 'human touch' and 'authenticity' understanding of the characters• Easier to understand key points• time to search ready made video, and may miss some concepts• need adequate time to produce tailor-made videos

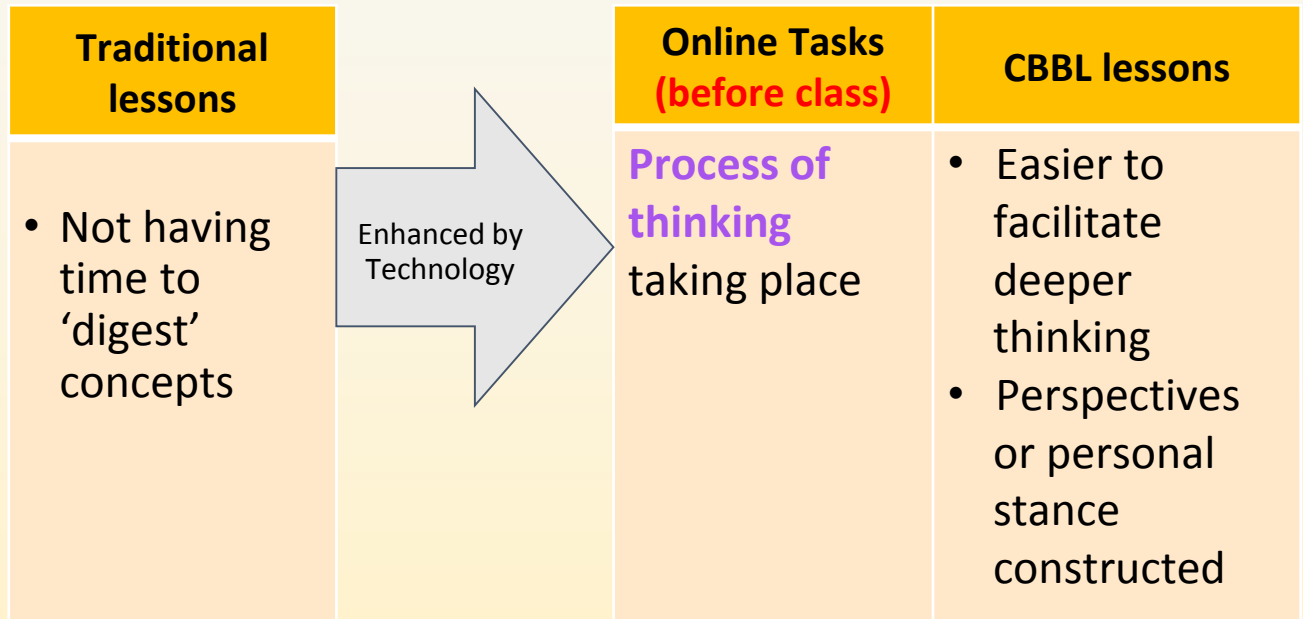
2. Pedagogical richness

- a. Timing
- b. Means
- c. Integration
- d. Student-led learning
- e. Making (conceptual) learning visible

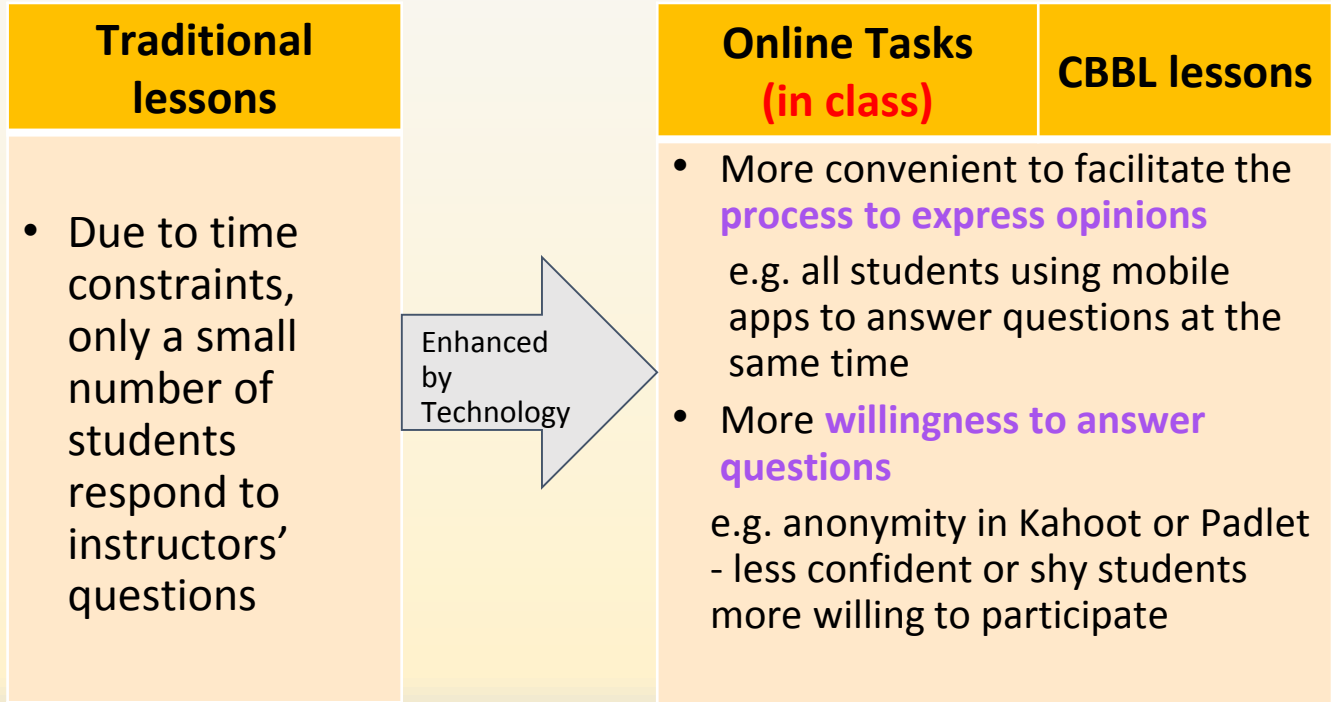
a. Timing

- Facilitate student preparation before lesson
 - design **more engaging activities** in face-to-face lessons
- Collect student responses before lesson -
more time to prepare feedback, thus increasing richness and quality of feedback

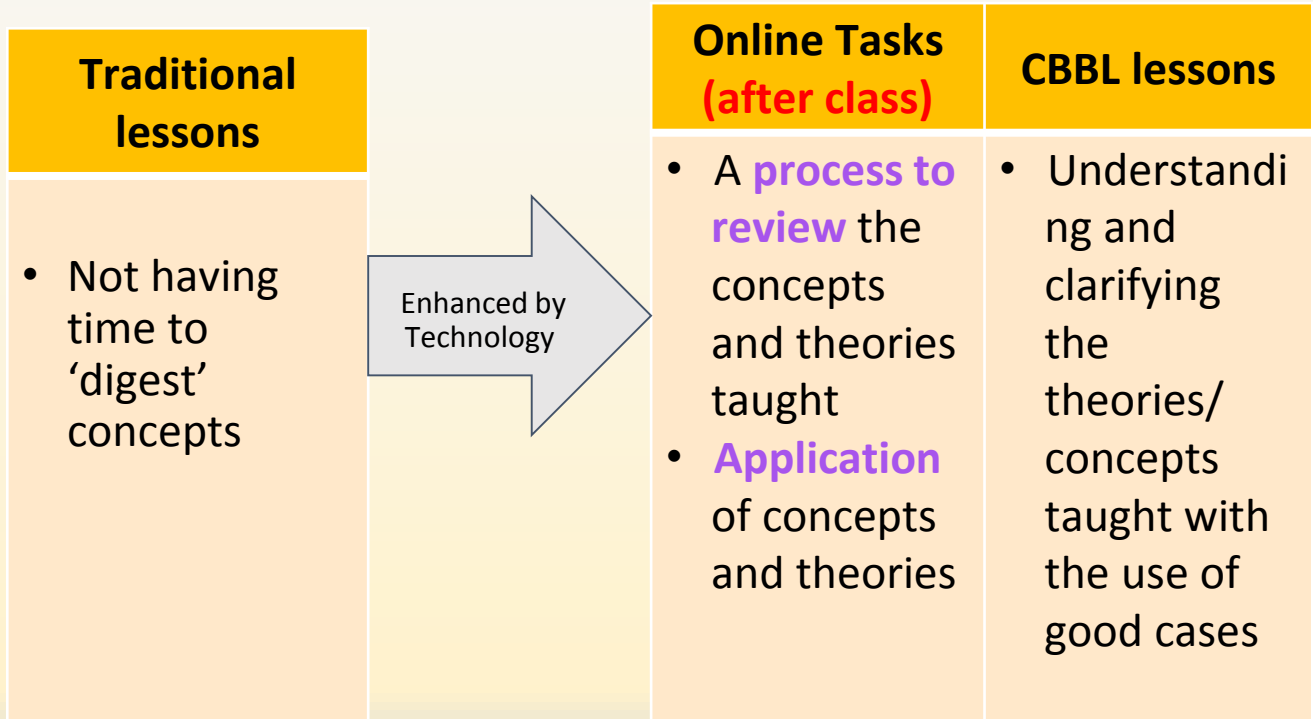
Online tasks (before class) serve as **preparatory tools** for CBBL lessons, and **increase student readiness** for face-to-face components.



Online tasks (in-class) serve as **facilitation tools** for CBBL lessons, and **increase student participation** in face-to-face components.



Online tasks (after class) serve as **an extension** for CBBL lessons, and **increase student opportunity to apply concepts learned from face-to-face components.**



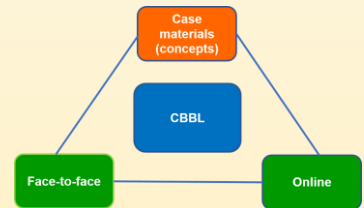
b. Means

1. By case
e.g. students submit a case happened in school
2. By text
e.g. Q & A in google form
3. By image
e.g. Mindmap, photos, Word Cloud

c. Integration

Deepen students' conceptual understanding

1. Categorize: Instructors summarize student online responses.
2. Elaborate: Students identify key online responses and discuss in groups.
3. Clarify: Students do online tasks in class and instructors give immediate feedback.



Interactive pedagogies
to challenge students'
thinking

Example by topic (T3)

Online task – Google Form

https://drive.google.com/open?id=1c4zIHTBj5rhv0_VVumR8zltLx5ipN5ak20QM77FZu7E

You are the fourth teacher in the group of the case. What will be your choice of decision? Explain and justify your stance.

1. Apply knowledge of ethical dilemma and code of ethics
2. Practice the process involved in making professional judgement and choice of action
e.g. listening to different perspectives, investigation, handling conflicting views
3. Take note of with 'fuzzy' knowledge – no absolute solution or right/wrong

Example by topic (con't)

Face-to-face – Group Discussion

<https://www.youtube.com/watch?v=j7yEgXRJEjY&feature=youtu.be>

1. Analyze students' online responses
 - patterns of these responses (e.g. some views more prominent than others)
 - reasons behind the different stances shown in the case and online responses
 - refer to the code of ethics
2. Discuss how professional ethics may help uphold teacher professionalism and what is most important to consider in the face of an ethical dilemma.

Example by course (T9)

Topic(s)	Case-Based Blended Learning	
What is curriculum?	Session 2	Face-to-face: Video case posted to Moodle Online (Post lesson) : discuss curriculum definitions + Self-reflection
Analyzing teachers' perspectives on curriculum	Session 4	Online + Face-to-face: Four vignettes on teachers' perspectives (mini cases) on teaching, assessment and curriculum objectives in their subjects + Group discussion on Mentimeter+ teacher feedback
Analyzing a student teacher's model of curriculum design	Session 4, 6, 8	Online + Face-to-face: case description (with case teacher's self-reflection) + lesson materials (e.g. Primary-4 lesson on 'Fresh Food' in English language) + group discussion on Padlet + teacher feedback
Analyzing the approaches to assessment used in the drama play		
Catering Assessment to diverse learners	Reading week	Online: Video case (language learning and social difficulties of a newly-arrived primary-3 student) + Self-learning by responding to questions on Mentimeter
Analyzing how the "Activity Week Experience" helps students fulfil the seven learning goals	Session 13	Online + Face-to-face: AWE of Tak Sun Primary & Secondary Schools + group discussion on Padlet+ analysis of online responses & self-reflection + reading on activities of Other Learning Experiences at Law Ting Pong School
Applying the guiding principles of life-wide learning		
Discussing a case study on the validity of school-based assessment (SBA)	Session 14	Online + Face-to-face: A research study on students' 4-stage pre-planning activities during school-based peer group speaking assessment in English language subject HKDSE + Group discussion on Mentimeter +analysis of online responses

d. Student-led learning

Students contribute

Student responses in the form of decisions, opinions and explanations

Different sources of case (examples)	
<i>From instructors</i>	<i>From students</i>
Cases developed from readings	Students to submit a case
Cases from newspapers, YouTube or website, etc.	Students to use their cases in FE
Cases from their own teaching experiences	

d. Student-led learning

Students engage

- Student engagement in case selection, discussion and analysis

Students choose

- Student choice in terms of time to complete an online task or to select which date to participate in an online forum

Students interact

- More **variability** - technology makes different types of interaction possible
e.g. online forum, Padlet, Kahoot, Mentimeter vs. Q & A
- More **time** to digest other people's responses

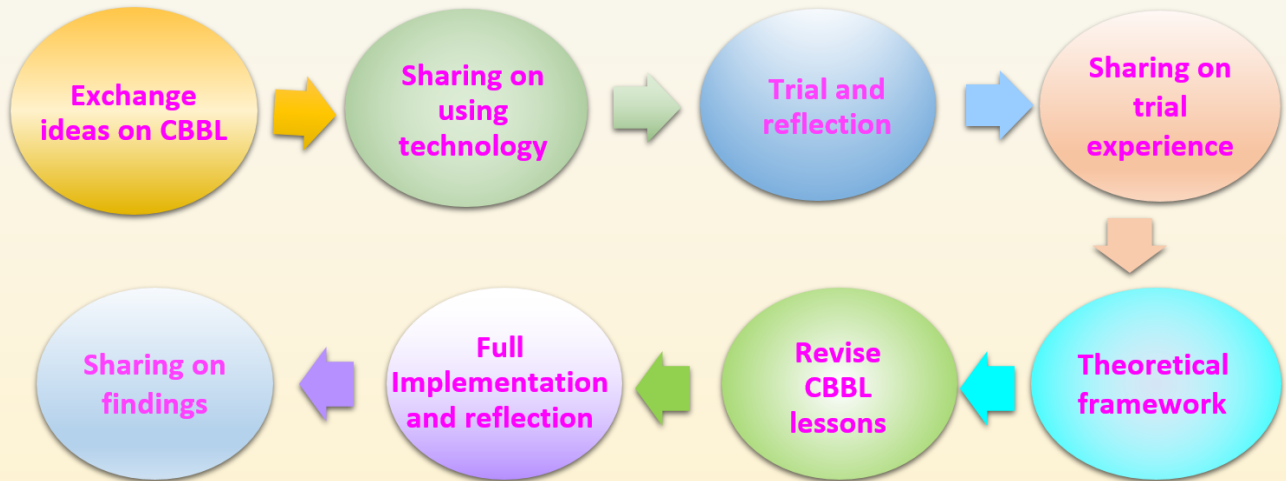
e. Making (conceptual) learning visible

- **Technology as a facilitator** (externalize new learning)
e.g. showing student responses , different mind maps and photographic images on screen
- Student responses to cases (often descriptive) through technology – **challenge conceptual understanding and/or misconception**



Professional Learning

Accumulation of CBBL experience through PLC



1. Learning curve in CBBL
2. Familiarity of course content influencing level of difficulty in CBBL design
3. CBBL taking time to develop

1. Learning curve in CBBL

Exploration

Characteristics:

- **Materials** - What is a case? What is a good case?
- **Not familiar with technology** (except for instructors who have a higher capability in using technology)
- **No / less room for student-led learning**

Transition

Characteristics:

- More familiar with materials
- Familiar with selected technology
- More room / tendency for student-led learning

Adaption

Characteristics:

- Smoothness in using materials
- Technology used in different components / confident to use selected technology or different means of technology
- Reaching **better balance between teacher-led and student-led learning**

2. Familiarity of course content influencing level of difficulty in CBBL design

	Teachers new to the course	Teachers with experience In the same course
CBBL lesson planning and design	<ul style="list-style-type: none">• More time on exploration of course content and materials	<ul style="list-style-type: none">• Familiar with materials, more efficient in choosing materials
		<ul style="list-style-type: none">• Easier to make adjustment in CBBL design, e.g.<ul style="list-style-type: none">▪ “more familiar with the materials, able to let students lead a presentation”▪ further develop the case, more information to enhance the complexity of the case

3. CBBL taking time to develop

	Instructors without CBBL experience	Instructors with prior CBBL experience
CBBL lesson planning and design	<ul style="list-style-type: none"> In exploratory stage More focus on 'content - selection of case materials' 	<ul style="list-style-type: none"> More focus on 'construction – lesson delivery' e.g. how to have a better integration, how to use student responses, how to design student-led activities, etc.
Process	<ul style="list-style-type: none"> Difficulties encountered during experimentation, e.g. definition of case , ways to integrate a case, content and lesson delivery, or use of technology 	<ul style="list-style-type: none"> Smoother teaching Effectiveness of CBBL enhanced year by year (familiar with materials / adjustment of materials/ change of course content or structure over the years)
Integration	<ul style="list-style-type: none"> General linkages found in online tasks and face to face lessons Some classes not showing very clear integration (reflected by students in focus groups) 	<ul style="list-style-type: none"> Deeper integration in general (reflected by students in focus groups)



Thank you

Online Package:

<https://sites.google.com/site/eduhkcbbbl/>