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



Experimentation Team		Project consultant
Principal supervisors	Participant members	Project consultant
Lee Tai Hoi Theodore (EPL) Yuen Wai Kwan Gail (EPL)	Cheng Yuen Ling Elaine (ECE) Ho Chun Sing Maxwell (EPL)	Prof. Charles R. Graham
Co-supervisors	Hu Xinyun Annie (ECE)	Instructional Psychology & Technology
Chan Po Lin Pauline (ECE) Choi Taehee (EPL) Wang Zhihong Peter (C&I) Yang Wint (C&I) University of Hong Kong Library For private study or research only. Not for publication or further reproduction.	Lee Hui Lin Daphnee (EPL) Poon Yu Hin (EPL) Tang Hei Hang Hayes (EPL) Xu Hui Xuan (C&I)	McKay School of Education Brigham Young University, USA

Objectives

Experiment, document and refine CBBL pedagogies

dentify 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)



Experimentation - feedback

Semester I (trial run)

Instructors

5 individual interviews

2 reflective discussions

Students

3 focus groups28 completed questionnaires



Semester II

Instructors

11 individual interviews

Students

9 focus groups228 completed questionnaires

Semester I Trial Run

Critical learning points



Difficulty / Myth 1:

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How to develop a case? What is a good case?

- 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

Difficulty / Myth 2: How to prepare a CBBL lesson?

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



Difficulty / Myth 3:

Is high technology needed in CBBL lessons? / Is CBBL same as adding activities using some technological means?

- CBBL emphasis on pedagogical goals and strategies rather than high technology
- Purposeful pedagogical plan to integrate:

Difficulty / Myth 4:

Does CBBL work for theory-based or practical-based content?

- 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



Importance of theoretical framework



- Decrease resistance to CBBL, because the conceptual framework shifts the focus from technology to pedagogy (T6)
- Reduce barriers to implement CBBL, providing a practical frame of reference on design / planning CBBL lessons (T6Q12)
 - e.g. criteria of a good case, three components of CBBL
- More systematic (T3.2Q1, T4Q1)
 - e.g. aspect of concern



Three components

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

(Kerres & De Witt, 2003)

Interlocking components (non-linear relation)

- 1. Selection of case materials
- 2. Development of case materials
- 3. Lesson delivery
- 4. Technology (interface with #1, 2, 3)

(adapted from McGee & Reis, 2012)



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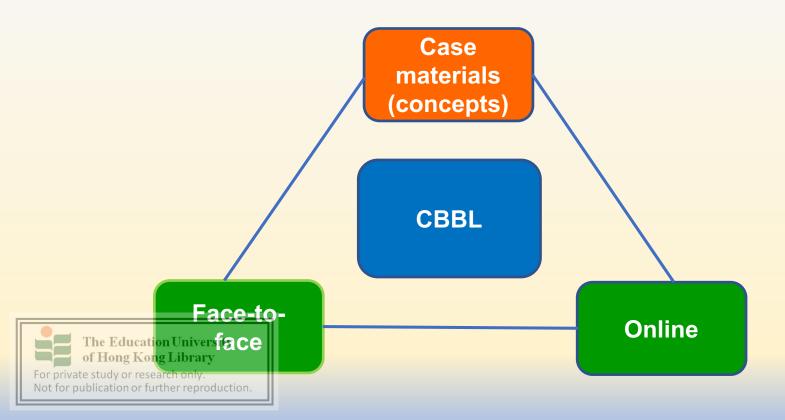
1. Content **CBBL** Facts or rules the learner should be able to recall. Can be explicated and communicated by media or Selection of case technological means materials • Specific information as a prerequisite for other communicative or constructive learning activities The Education University of Hong Kong Library For private study or research only.

	2. Communication	CBBL
	 Knowledge reaching a certain complexity Knowledge consisting of different competing concepts Require a deeper understanding of a theoretical framework Students learn to formulate, express and discuss a personal point of view 	Development of case materials
For pri Not fo	• Students learn to participate in discussions, The Education University of Formulate and receive feedback in discursive vate study or research only. r public settings eproduction.	

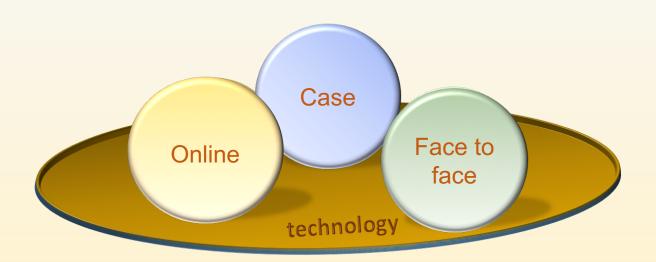
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3. Construction **CBBL** Knowledge to be applied (and not only to be recalled) Lesson delivery: Knowledge consisting of procedures (and not only online and of declarative knowledge) that require practice face-to-face Content including 'fuzzy' knowledge The Education University of Hong Kong Library For private study or research only.

Integration in CBBL



'Marbling' effects





Pedagogical Learning



- 1. Lesson design
- 2. Pedagogical richness
- 3. Student-led learning
- 4. Quantity and quality of student interactions
- 5. Making learning visible



1. Lesson design

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

a. Change in the concept of 'lesson'

Traditional lessons

- Learning mainly comes from instructors
- Dominated by few students (raise hand and answer) (Sfg3.2,Sfg6,T1)
- Limited perspectives



Enhanced by Technology

CBBL lessons

- Learning from all students (e.g. online task responses) (T2,Sfg3.2)
- Communication happens among all students (T4,Sfg3.2)
- Different types of pedagogical strategies (e.g. pre-class / in-class / post-class online responses) (T1-T11)
- Broadened perspectives (T1 AIS)

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 Lecture: more interaction with students

Tutorial: case analysis and in-depth discussion

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



Students	Instructors
 Concerns Authenticity (Sfg1, Sfg3.1, Sfg4, Sfg7, student questionnaire) Connectivity (Sfg1,Sfg3.2, Sfg4) Transferability (practical knowledge and skills)(Sfg4, Sfg7, student questionnaire) 	 Emphases Authenticity (T1, T2, T3.1, T5, T6, T9) Connectivity (T1, T2, T4, T6) Transferability (practical knowledge and principles) (T1, T3.1, T7,T9) Complexity (T1,T3.2,T10) Ambiguity (T1,T9) Openness (multiple points of entry) (T3.2,T7) Conceptual challenge (T3.1)
For private study or research only. Not for publication or further reproduction.	Human touch (T10)

Example

An animated case – sexual harassment

https://drive.google.com/open?id=0B-C2l9x82slkYXE0MHdwS0VtYU0 (bilingual)

Script for instructors

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https://drive.google.com/file/d/0B-C2I9x82slkeWZ5MHNsdE41cGc/view (Chinese)

https://drive.google.com/file/d/0B-C2I9x82slkSUNjZmJGMEh0ZFU/view (English)

1. Present a real incident experienced by a serving teacher

Authenticity, Connectivity

2. Show an ethical dilemma and diverse perspectives involved in making professional judgement and choice of action

Conceptual challenge, Complexity, Openness, Ambiguity, Human Touch

3 Require practice in applying the code of ethics

Transferability

Students more concerned about 'solutions and skills' (how to tackle problems in the future) (Sfg3.2, Sfg4, , Sfg7, student questionnaire)

Difficulties in student learning

- From concrete knowledge to abstract/conceptual knowledge
- Handling cases in different contexts transferability may not build on theories /concepts
- This may be related to students' habits of learning or the absence of The Education Hong Kong Library Pelements in the selected case.

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From student data

 Cases with less ambiguity are difficult to develop in-depth discussions.

e.g. 'too good/nearly perfect' or 'too bad' (Sfg4) - very obvious answer (Sfg6)



Embedding concepts (not facts)

Example (T3.2)

Before class	In class	After class
Online task	Face to face	Online task
Watching a teacher movie + worksheet	Discussion and analysis of online responses +	Photographic journal
	conceptual explanation on emotional labor and	Students to capture a visual metaphor to
Students to identify social structures and emotional	rules	demonstrate conceptual understanding of
The Education University Idd I Cong Library For private study or research only.		emotional labor and rules

Embedding concepts (not facts)

More examples

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Different uses of case for conceptual understanding		
To show as an example (analysis T1)	To stimulate thinking (analysis T10)	To construct the course (analysis T9)
Students to submit one case + instructor cases	Students to submit one case on transition and apply concept(s) to the	Instructor to use students' authentic cases in FE + instructor's cases related
Use the case in a game to distinguish between 'fact' Tandu'principle'y of Hong Kong Library	case	to concepts / theories taught in the course

Student prior knowledge

Example 1 (T10)

Prior knowledge: home-school transition

Face-to-face: Students analyzed factors in the case and mapped them with the ecological system

Padlet to express points of view → group discussion → Mindmap to summarize factors affecting children and map them with the ecological



Student prior knowledge

Example 2 (T1)

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:
 - o without the code of ethics: students focusing mainly on the well-being of the affected student in the case

The Education University of Hon Kowith Code of ethics: students analyzing the teachers' actions and making or respreyed by the code of ethics

Student feedback on case format

Text	Animation	Video
Text-based cases with high authenticity and connectivity helpful to conceptual understanding (analysis Sfg1, student questionnaire) The Education University of Hong Kong Library For private study or research only.	 Some students may think it is a make-up case, affecting authenticity (analyzis Sfg3.1) 	 Visual and audio stimulation, (e.g. concrete image, dialogue, tone) in videos offering 'human touch' (C3.2) and 'authenticity'(Sfg3.1, student questionnaire) – helpful to gain a deeper understanding of the characters Easier to understand key points (C3.1, Sfg3.2)

Instructor feedback on case format

	Text	Animation	Video
	 Need adequate time for students to 'digest' the text (T1) Quick and efficient way to collect students' cases, 	 Highlight the issue in case (T9) 	 Cases from websites/ Youtube: a) time to search, and b) missing some
	 increasing variation of cases(analysis T1) Less time to produce than videos (T3.2) 		 concepts (T4, T8) Tailor-made videos: need adequate time to produce (analysis T3.2)
Fo	Higher Confidentiality e.g. r private study or free rich only tudent teachers (T9)		

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 (T2,T3.2, T9)
- Collect student responses before lesson more time to prepare feedback, thus increasing richness and quality of feedback (T3.2, T9)

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

Traditional lessons

 Not having time to 'digest' concepts



Online Tasks (before class)

Process of thinking taking place (analysis Sfg3.1, Sgf6,T3.2, T7)

CBBL lessons

- Easier to facilitate deeper thinking (analysis Sfg3.1, T1)
- Perspectives or personal stance constructed (analysis Sfg3.1)

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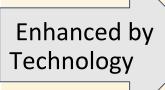
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Online tasks (in-class) serve as facilitation tools for CBBL lessons, and increase student participation in face-to-face components.

Traditional lessons

 Due to time constraints, only a small number of students respond to instructors' questions (T1 AIS)



Online Tasks (in class)

CBBL lessons

- More convenient to facilitate the process to express opinions
 - e.g. all students using mobile apps to answer questions at the same time (analysis sfg1,T4, T1)
- More willingness to answer questions
 - e.g. anonymity in Kahoot or Padlet less confident or shy students more willing to participate (analysis sfg1,sfg3.2,sfg6,T11)



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

Traditional lessons

 Not having time to 'digest' concepts

Enhanced by Technology

Online Tasks (after class)

- A process to review the concepts and theories taught
- Application of concepts and theories (sfg3.2)

CBBL lessons

 Understanding and clarifying the theories/ concepts taught with the use of good cases (sfg3.2)



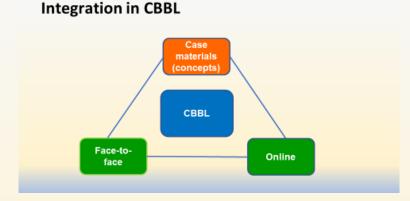
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b. Means

- By case (T1,T2,T4)e.g. students submit a case happened in school
- 2. By text (T3.1, T7, T5, T6, T7, T8, T9, T11) e.g. Q & A in google form
- 3. By image (T3.2, T10)
 e.g. Mindmap, photos, Word Cloud

c. Integration



Deepen students' conceptual understanding

- 1. Categorize: Instructors summarize student online responses. (T6,T11)
- 2. Elaborate: Students identify key online responses and discuss in groups. (T3.1,T3.2,T2, T7, T1, T9)
- 3. EduClarify: Students do online tasks in class and instructors give immediate of Hong Kong Library (T4,T10)

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 the Take note of with 'fuzzy' knowledge - no absolute solution or right/wrong

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Example by topic (con't) (T3)

Co-construction of knowledge

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	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	4, 6, 8	
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 Applying the guiding principles of life-wide learning The Education University	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
Discussing ane as estably on the validity of school dased assessment (SBA) r publication or further reproduction.	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

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Student responses in the form of decisions, opinions and explanations

Different sources of case (examples)					
From instructors	From students				
Cases developed from readings	Students to submit a case (T1,T2,T4)				
Cases from newspapers, YouTube or website, etc. (T8,T4,T11)	Students to use their cases in FE (T9,T4)				
Cases from their own teaching experiences (T6, T10)					

d. Student-led learning

Students engage

 Student engagement in case selection (T1,T2,T4), discussion (T1-T11) and analysis (T3.2, T7,T10,T9,T4,T2)

Students choose

• Student choice in terms of time to complete an online task or to select which date to participate in an online forum (Sfg6,T7)

Students interact

More variability - technology makes different types of interaction possible

e.g. online forum, Padlet, Kahoot, Mentimenter vs. Q & A (summary T1-T11)

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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



(analysis T1-T11)

Professional Learning



- 1. Learning curve in CBBL
- 2. Familiarity of course content influencing level of difficulty in CBBL design
- 3. CBBL taking time to develop
- 4. Accumulation of CBBL experience through PLC



1. Learning curve in CBBL

Exploration

Characteristics:

- Materials What is a case? What is a good case? (T4)
- Not familiar with technology (except for instructors who have a higher capability in using technology) (T3.2,T9)
- No / less room for student-led learning

analysis T2, T3, 2) sity

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Transition

Characteristics:

T2Q1 + data from other instructors

- More familiar with materials (T2)
- Familiar with selected technology (T2)
- More room / tendency for student-led learning (T2, T3.2)

Adaption

Characteristics:

- Smoothness in using materials (T2,T10)
- Technology used in different components / confident to use selected technology or different means of technology (T3.2,T10)
- Reaching better balance between teacher-led and student-led learning (analysis T2)

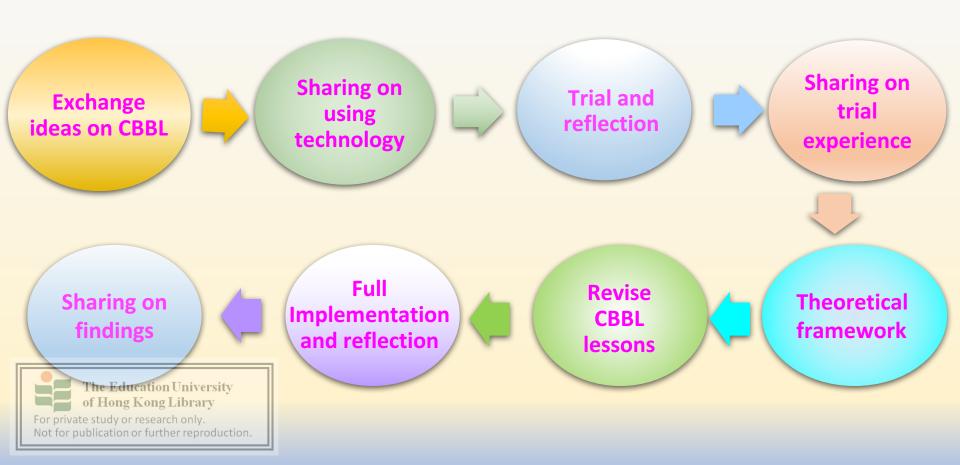
2. Familiarity of course content influencing level of difficulty in CBBL design

		Teachers new to the course	Teachers with experience In the same course
CBBL lesson planning and design	More time on exploration of	Familiar with materials, more efficient in choosing materials (analysis T3.2)	
	:SIRII	course content and materials (analysis T6)	 Easier to make adjustment in CBBL design, e.g. "more familiar with the materials, able to let students lead a presentation" (summary T3.2, T2) further develop the case, more information
of H For private stu	Education U long Kong Li Idy or research ation or further	brary pnly.	to enhance the complexity of the case (analysis T10)

3. CBBL taking time to develop

	Instructors without CBBL experience	Instructors with prior CBBL experience
CBBL lesson planning and design	 In exploratory stage (T1,T6) More focus on 'content - selection of case materials' (T6, T4,T1) 	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. (T3.2)
Process	Difficulties encountered during experimentation, e.g. definition of case (T4), ways to integrate a case, content and lesson delivery (T6), or use of technology (T9)	 Smoother teaching (T2) Effectiveness of CBBL enhanced year by year (familiar with materials / adjustment of materials/ change of course content or structure over the years) (T2,T3.1)
For private study or r	General linkages found in online tasks and face to face lessons Some classes not showing very clear (reflected by students in furth focus groups) (Sfg4,Sfg6)	Deeper integration in general (reflected by students in focus groups) (sfg3.1,3.2,sfg7)

4. Accumulation of CBBL experience through PLC



Thank you



Appendices

Semester I & II Student Feedback

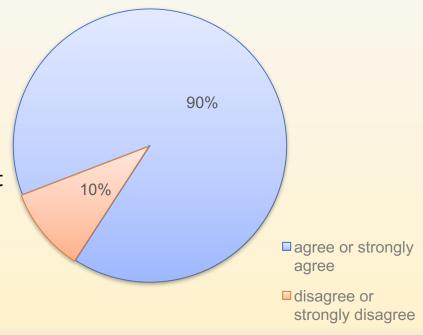


Semester I (trial run) (student questionnaire)

More than 90% of students agree or strongly agreed that:

- 1. The case materials offered concrete examples to illustrate relevant concepts/content in the course
- 2. The design of the online tasks enhanced my understanding of relevant concepts/content in the course.
- 3. The online tasks and face-to-face lessons were clearly connected.
- 4. The overall CBBL experience increased my engagement in the course and useful to the extend my learning in the course.

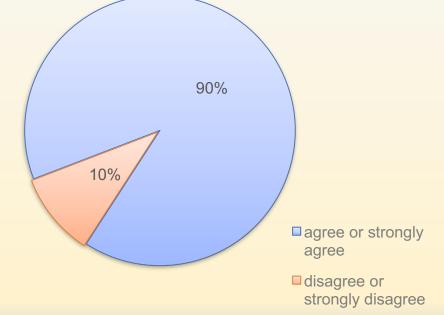
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Semester II (student questionnaire)

More than 90% of students agree or strongly agreed that:

- 1. The case materials offered concrete examples to illustrate relevant concepts/content in the course
- 2. The case materials helped me understand relevant concepts/content in the course.
- 3. The online tasks and face-to-face lessons were clearly connected.
- 4. The overall CBBL experience increased my engagement in the course.
- 5. The overall CBBL experience was useful to The external my learning in the course.



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The End

