

THREE PRACTICAL TIPS STUDENTS TEACH ME ABOUT USING COLLABORATIVE LEARNING STRATEGIES: A QUALITATIVE STUDY

Wincy LEE

23 June 2017



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Preface/Epilogue?

- A TDG project to evaluate the effectiveness of pedagogy with mixed methods.
- Quantitative repeated measurements:
 - Sophistication in epistemic beliefs
 - Change in conception of teaching from traditional to constructivist
- Qualitative methods:
 - In-depth interview with students to identify critical aspects of the design of learning environment.
- Results...



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

How people learn (Bransford & Cocking, 2000; Swayer, 2010)

Principle 1: Activating prior knowledge

It highlights the importance of learners' prior knowledge, that learning means a successful bridging of new knowledge to one's existing knowledge.

Principle 2: Developing metacognitive abilities

It highlights the importance of not just teaching the content, but also building learners' capacity to monitor and evaluating their own learning.

Principle 3: Providing collaborative learning opportunities

It highlights the need to include activities that have collaborative nature to facilitate learners' learning.

Principle 4: Anchoring the curriculum on big ideas

It highlights the importance of identifying the core ideas in a curriculum and being able to teach in an in-depth manner.



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

What is new in the course?

- Using the learning principles as the over-arching guide for designing the curriculum, pedagogy and assessment of a course.
- The learning principles are part of the content of the course.

What is new?

- In other words, students experience the principles first-hand, as well as knowledge to be learnt.
- Content and process are aligned.



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Research Questions

1. How does the 'pedagogy' foster the sophistication of students' epistemic beliefs and conception of teaching?
2. What are the effective and critical elements in the learning environment students' identified as facilitative to their learning?



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Context and design

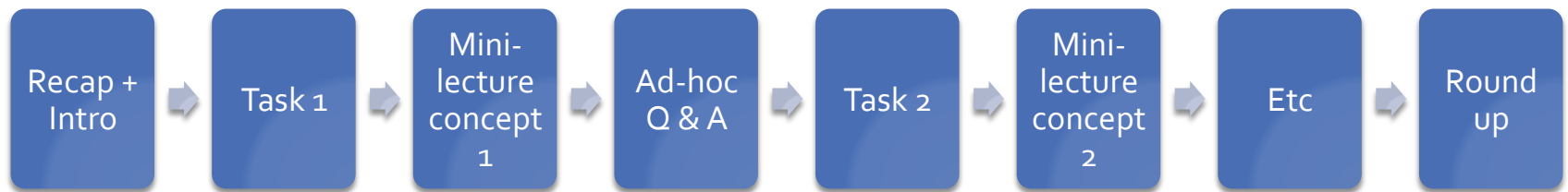
- Course title: TLS3017 Teacher as Curriculum Planner
- Period: Semester 1 2016-2017
- Durations of lessons: 3-hours lessons, 11 face-to-face sessions.



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Summary



Students' experience in TLS3017



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Examples: Tasks range

- From small-scale, unstructured discussion on single question/concept; to full-blown jigsaw type of structured group discussions
- Example may serve more than one principles



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Principle 1: Example

Principle 1: Activating prior knowledge

In the lesson on 'prior knowledge', students were asked to think of contexts they had come across the term and its meaning. (mostly about writing lesson plan)



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Principle 2: Example

Principle 2: Developing metacognitive abilities

- A workshop was given to students to help them understand the standards and criteria of the final assignment.
- Students were provided with the grading rubrics, alongside previous students' work (anonymised). They were asked to grade the work with justification by using the rubrics individually.
- Then students had to discuss in group to arrive at consensus of grade.



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Principle 3: Example

Principle 3: Providing collaborative learning opportunities

- Jigsaw on topic of assessment.
- Students were assigned into expert groups of:
 - Assessment of learning
 - Assessment for learning
 - Assessment as learning



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Principle 4: Example

Principle 4: Anchoring the curriculum on big ideas.

Core principles in guiding curriculum planning will be used as the major axis of the course (Theoretical underpinning of curriculum; constructivism in teaching and assessing and constructive alignment).

1. Constructivism: Four learning principles
2. Identification of learning goals and objectives
3. Curriculum model
4. Role of assessment in curriculum



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Participants and procedures

- Twenty-two students (Male: 7; Female: 15) enrolled in the course.
- Invitation emails were sent to 12 students (6 high, 4 mid, 2 low) upon grade release of the semester for in-depth interview.
- 8 students responded (6 high and 2 middle)
- I conducted the in-depth interview



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Interview protocol

- Semi-structured interviews were conducted.
- Participants were first invited to discuss any memorable aspects of the course.
- The interviewer then prompted them to explain how and why these incidences related to and facilitated their learning.
- This process was repeated until the participants could no longer recollect anything further from the course.
- The interview took on average 25 minutes.



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Make a quick guess: Yes or No

- Students in general don't like discussion. They think all discussions are waste of time. They just want to be left alone.
- Students prefer to choose their group members in discussion rather than being assigned to work with unfamiliar peers.



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Findings: Three themes emerged

1. What's worth discussing
2. When does the discussion take place?
3. How's the discussion structured?



**The Education University
of Hong Kong Library**

For private study or research only.
Not for publication or further reproduction.

1) What's worth discussing?

Preference of discussion

Students are reflective about their learning preference and can offer explanation on engagement and non-engagement in discussion tasks in different learning situations

- 'It's just that I don't think all discussions are worth doing. For those discussions that are not worth doing, I would rather not to speak.' (Participant. 3)
- 'If I find a discussion or question worth my effort, I would like to raise my thoughts and answers to see what advice or idea my teacher would offer to me, otherwise...' (Participant. 2)



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

2) When does the discussion take place? Sequencing discussion

- Whether discussion is worth pursuing or not, students do not judge it from the content's ontological importance.
- Instead, what they mean by 'worthiness' is actually '**efficacy**' -- that is, whether they can have the competence and sufficient background knowledge to complete the discussion.



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

- 'Many lecturers would keep on presenting their points during the lessons and they would invite the floor to discuss a few questions just before the lesson ended. However, I might not understand the lecture and therefore the questions, so....' (P2)
- 'I remember that the flow of this course is different...in most lectures in this course, we were asked to do discussion at the very beginning of a lesson. Then we shared our ideas with each other before your explanation of a new topic. In other courses, we mostly listened to a lecture before entering into a discussion. Sometimes you wouldn't want to listen to the lecture and then you were asked to take part in the follow up discussions which would hardly arouse your interest. But in this course, we were asked to discuss on some new knowledge which we didn't know much at all. There is a lot of room for us to express our ideas. After discussions, we would want to listen to the elaboration and get to know the answer. This is very special.' (P3)



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

- 'I would have a chance to think by myself before you really get into the topics. My mind would get more ready for what would be going on in the lesson. You would ask us to think over the concepts in group before you elaborate the topics...When you asked us to think by ourselves, I felt what I've known was not enough and I needed to consolidate what was on my mind before listening to your lecture.' (P5)
- 'Many of the discussions in this course allowed us to think from zero.' (P3)



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Another participant supplements a point that ties in well with this notion of 'efficacy'. If the discussion relies on materials that are beyond their mastery, students' may refrain from engaging in the task,

- 'Teachers often asked us to read loads of journal articles and then discuss. It was hard for us to understand (the readings) and also what they were trying to teach us. We didn't feel involved and not to mention to discuss the questions.' (P₄)



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

3) How's the discussion structured?

Group assignment

It may appear counter-intuitive. Participants unequivocally expressed that they found an imposed group structure very facilitative to their learning

- Social pressure motivates them to participate
- Group diversity broadens their horizon and reinforces the meaning of discussion
- Mixed group deepens the impression of discussed content



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

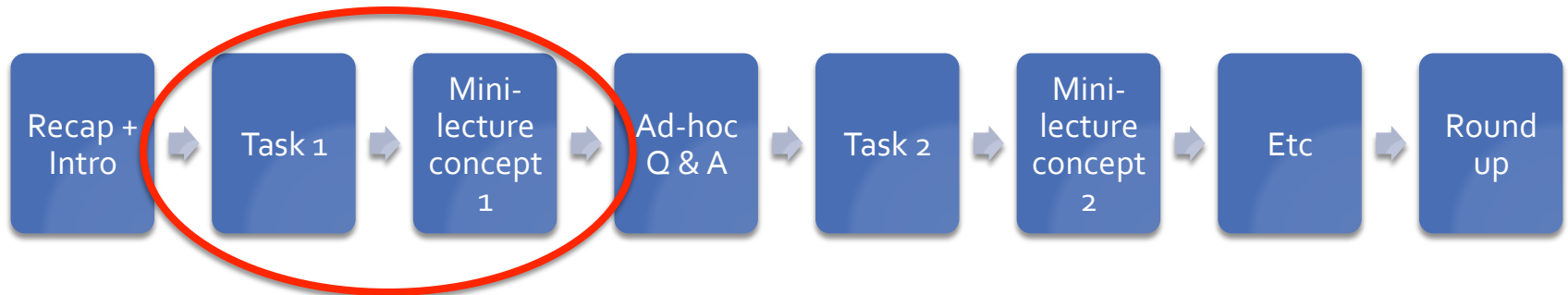
- 'This is the first time I need to be involved mandatorily in group discussion, where I was made to meet and discuss with different classmates for different discussion tasks. This is my very first time since I began my study in University. I think this is an effective way to force us to speak up and express our opinions. This impresses me most.' (P₃)
- 'Splitting the class into groups for activities also led us to feel more involved and engaged. [Imposed] grouping did help. Students in each group usually didn't know each other. You then have to force yourself to speak up in a group of strangers and wouldn't let dead silence happen' (P₁)



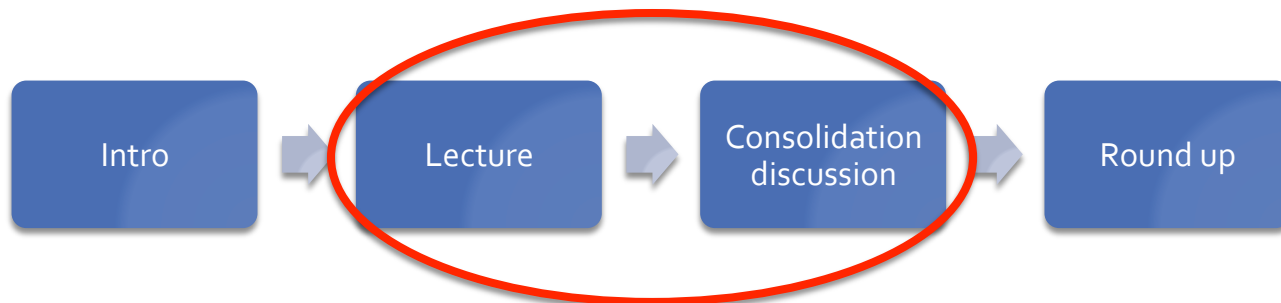
- 'You would often rotate or change group members for discussion. This allows me to share views with different people in the class and that has widened my horizons. As a student attending a class, he or she should be responsive to the teacher's teaching. If the teacher asks you to do the discussion, and when everyone is moving forward to do that, you won't choose to do nothing there. (P2)
- In this course, students were from various faculties so we would take the discussions more seriously. Your way of grouping helped mix students unexpectedly and every time the members in groups vary. (P5)



Summary



Students' experience in TLS3017



Students' prior experience of discussion



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

Discussion – What I have learnt

- Consider students' efficacy when designing tasks.
 - (non-engagement as feedback on task design)
- Consider using tasks to unearth students' prior knowledge, instead of only for consolidating understanding. Therefore, use task before teaching a concept instead of after.
 - (give variation on the use of task)
- Consider providing structure to group for optimal interaction and exposure.
 - (give variation on group structure, but this comes later only when the first two points have been well taken care of)



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

References

- Brandsford, J. D., Brown, A. L., & Cocking, R. R. (1999). How people learn: Brain, mind, experience and school. Washington, DC: National Academic Press.
- Dahl, T. I., Bals, M., & Turi, A. L. (2005). Are students' beliefs about knowledge and learning associated with their reported use of learning strategies? *British Journal of Educational Psychology*, 75, 257-273.
- Pintrich, P. R., Marx, R. W., & Boyle, R. B. (1993). Beyond cold conceptual change: The role of motivational beliefs and classroom contextual factors in the process of conceptual change. *Review of Educational Research*, 63, 167-199.
- Sawyer, R. K. (2009). The Cambridge Handbook of The Learning Sciences. Cambridge University Press. New York.
- Tolhurst, D. (2007). The influence of learning environments on students' epistemological beliefs and learning outcomes. *Teaching in Higher Education*, 12, 219-233.
- Willis, G. B. (2005). Cognitive Interviewing: A Tool for Improving Questionnaire Design. Thousand Oaks, CA: Sage Publication.



The Education University
of Hong Kong Library

For private study or research only.
Not for publication or further reproduction.

THANK YOU



**The Education University
of Hong Kong Library**

For private study or research only.
Not for publication or further reproduction.