

# STUDENTS' AGENTIC ENGAGEMENT

## —A DESIGN-BASED STUDY ON HOW TO INVOLVE STUDENTS IN CURRICULUM DESIGN

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Liru Hu, Baohui Zhang, Pengfei Li, Jinjian Yu

JURE

Aug. 11, 2019

# Content

1. Introduction
2. Literature Review
3. Research Method
4. Cycle Design and Reflections
5. Results and Discussion
6. Conclusion

# What is agentic engagement?



**Behavioral, Cognitive, and Emotional Engagement**

Reactions of students to instruction

(Reeve & Tseng, 2011)

**Agentic Engagement**

Constructive contribution to the flow of instruction

# Involving *students as co-designers* of curricula



Teacher



Students



Curriculum

# Extensive attention in higher education

- **Students as Co-Creators** (Bergmark & Westman, 2016; Bovill, Cook-Sather, & Felten, 2011)
- **Students as Co-Designers** (Cao, Zhang & Liang, 2014)
- **Participatory Instructional Design**
- **Students as Co-Producers** (Neary, 2012)
- **Learner-led Approaches in Education** (Jason et al., 2014)
- **Active Students Participation** (Bovill & Bulley, 2011)
- **Student-Faculty Partnership** (Cook-Sather, 2014)
- **Co-Teaching** (Cordner, Klein, & Baiocchi, 2012)
- etc.

# How to help students take these challenging roles?

- How to motivate and scaffold students' participation in the course co-design still remains open
- This study aims to provide practical guidance for the generalization of this learning design principle.

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# Scaffoldings for the co-design.

## Participation Channels



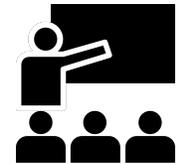
(Questionnaire)



(Interview)



(Online Learning Platform)



(In-Class Negotiation)



(Course Design Team)



(Co-Teaching)



(Co-Research)

etc.

# Multiple benefits from the co-design.



Teacher



Students



Curriculum



**Multiple Benefits through involving students designing the curriculum together**

(Bovill, Cook-Sather, & Felten, 2011; Cook-Sather, Bovill, & Felten, 2014; Delpish et al., 2010 )

# Challenges facing the co-design process.

- Traditional concepts (Delpish, 2010)
- Conflicts on world views (Zhang, 2009)
- Delayed responses to students' contribution (McCulloch, 2009)
- Inconsistence with expectations (Bovill et al., 2016)
- Unrepresentativeness (Felten, 2013)
- Teachers give up core authority or students require excessive power (Bovill, Cook-Sather, & Felten, 2011)

# Some restrictive factors of the co-design.

- Specific educational contexts
- Teachers' and students' relevant experience
- Availability of time
- Subject characteristics
- Support from institutions
- Influence of curriculum specialists, etc
- (Bovill and Bulley, 2011)

# What would we do further?

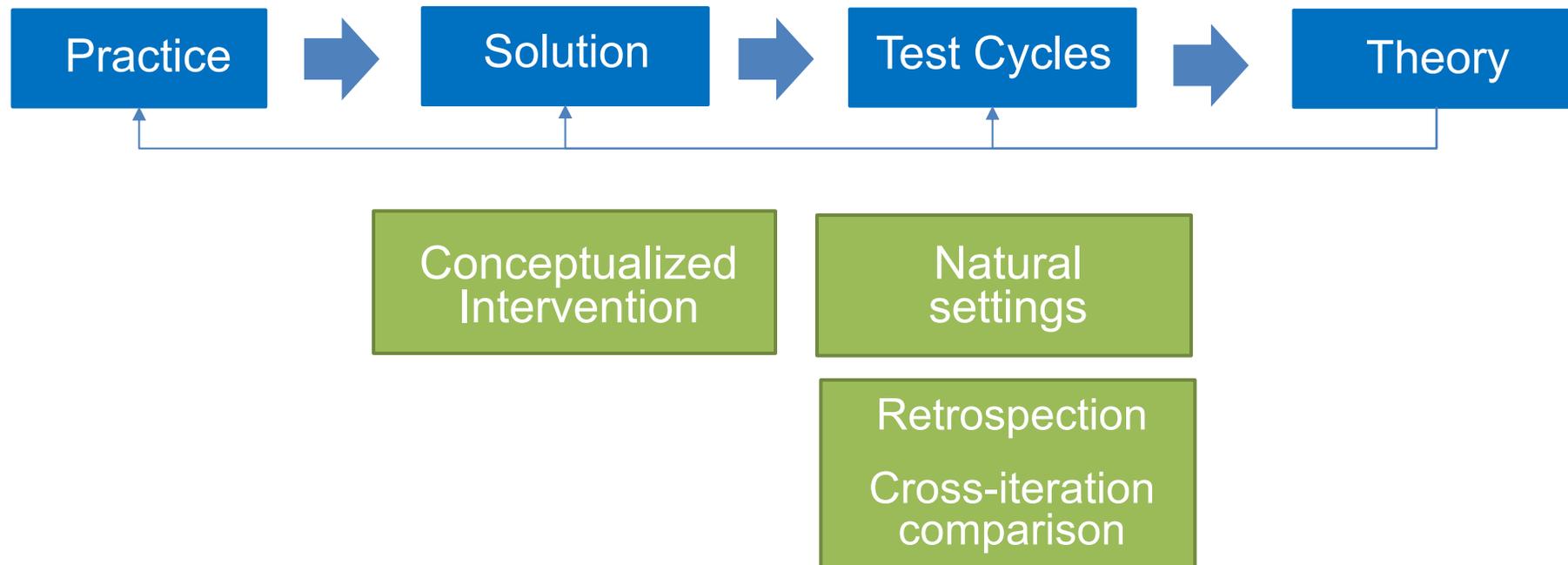
- How to systematically design learning based on this principle and address the implementation challenges still needs further exploration.
- **A generalizable implementation approach model**
  1. How to determine teachers' and students' **power and responsibility** in the co-designing process?
  2. How to design appropriate **scaffoldings** to support students' participation in the curriculum design?
  3. How to **coordinate** different types of scaffolding to optimally promote students' learning?

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# We used DBR to solve these problems.

## Design-based Research

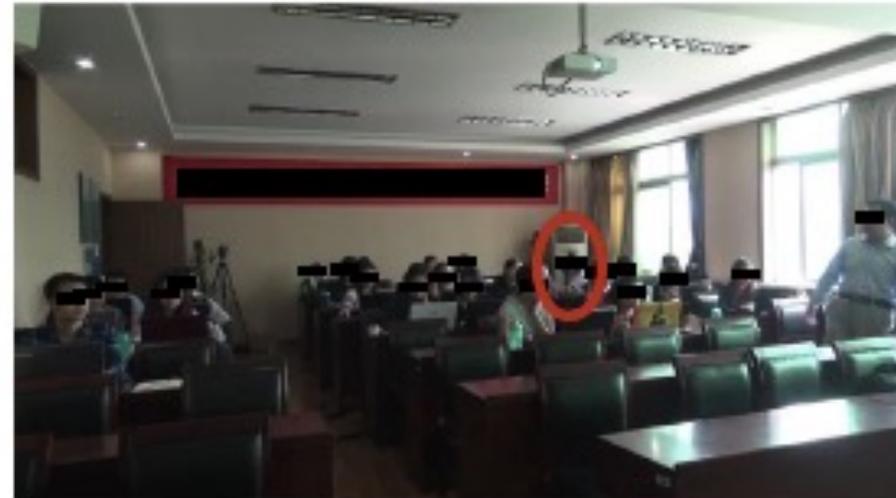


(Collins, 1990; Brown, 1992)

(Reeves, 2006) 14

# How were participants and settings?

## Design-based Research



- A bilingual course for graduate students on *Educational Research Methods*.
- In mainland China
- Two cycles
  - Semester of 2014 Fall: 26 students
  - Semester of 2015 Fall: 21 students

# We collected multiple-source data.

<b>Participation channels</b>	<b>Data source</b>
Course Design Team	Meeting minutes
	Meeting recordings
	Online records
Questionnaire	Pre-course survey
	Post-course survey
In-class Negotiation	Field notes
	In-class video clips
Homework	Individual homework
	Group homework
Co-Teaching	Online records
	Meeting minutes
	In-class video clips
Co-Research	Student papers
Online Learning Platform	Online records

# We coded data from four dimensions.

*“Add the action research method, about one hour. Integrate more real study cases.”*

- **Participation Channel:** CDT; OLP; HW; QNR; ICN; Co-T; Co-R
- **Contribution Type:** Suggestion; Problem; Problem+Suggestion; Resource Sharing etc.
- **Curriculum Factor:** Content; Design; Implementation; Planning; Objective; Homework; Evaluation; Technical Support etc.
- **Feedback:** Response(+ /- /N); Acceptance(+ /- /N)

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# Cycle one: student participate, teacher control.

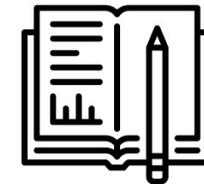
- Teacher: rich co-design experience but few subject teaching experience
- Students: basic subject knowledge but few co-design experience; strong motivation to be co-designers but low confidence
- Course: no ready course contents; module-based; theoretical and practical; small class; graduate level.



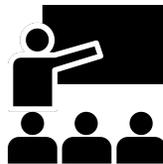
(Questionnaire)



(Online Learning Platform)



(Homework)



(In-Class Negotiation)



(Co-Teaching)

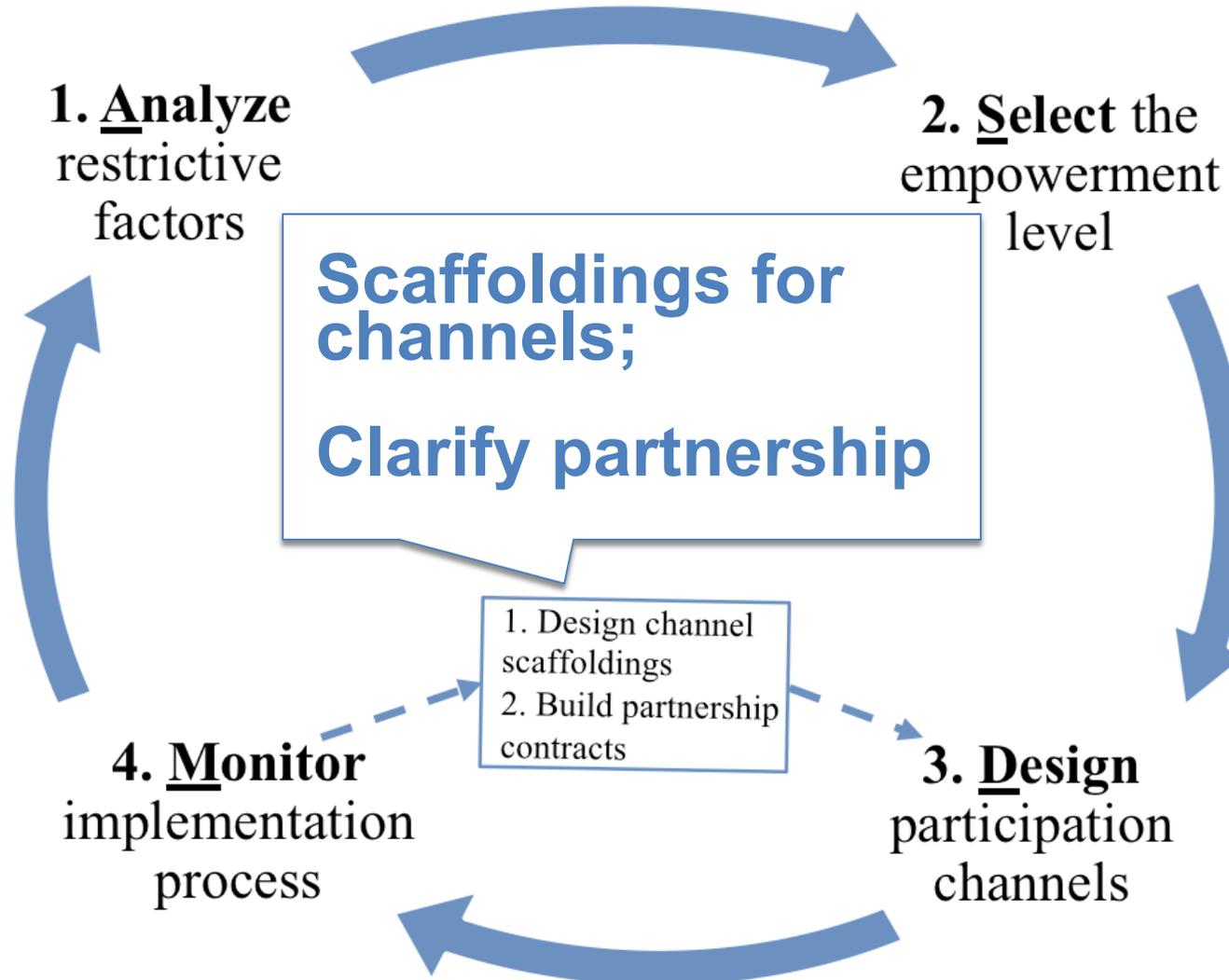


(Course Design Team)

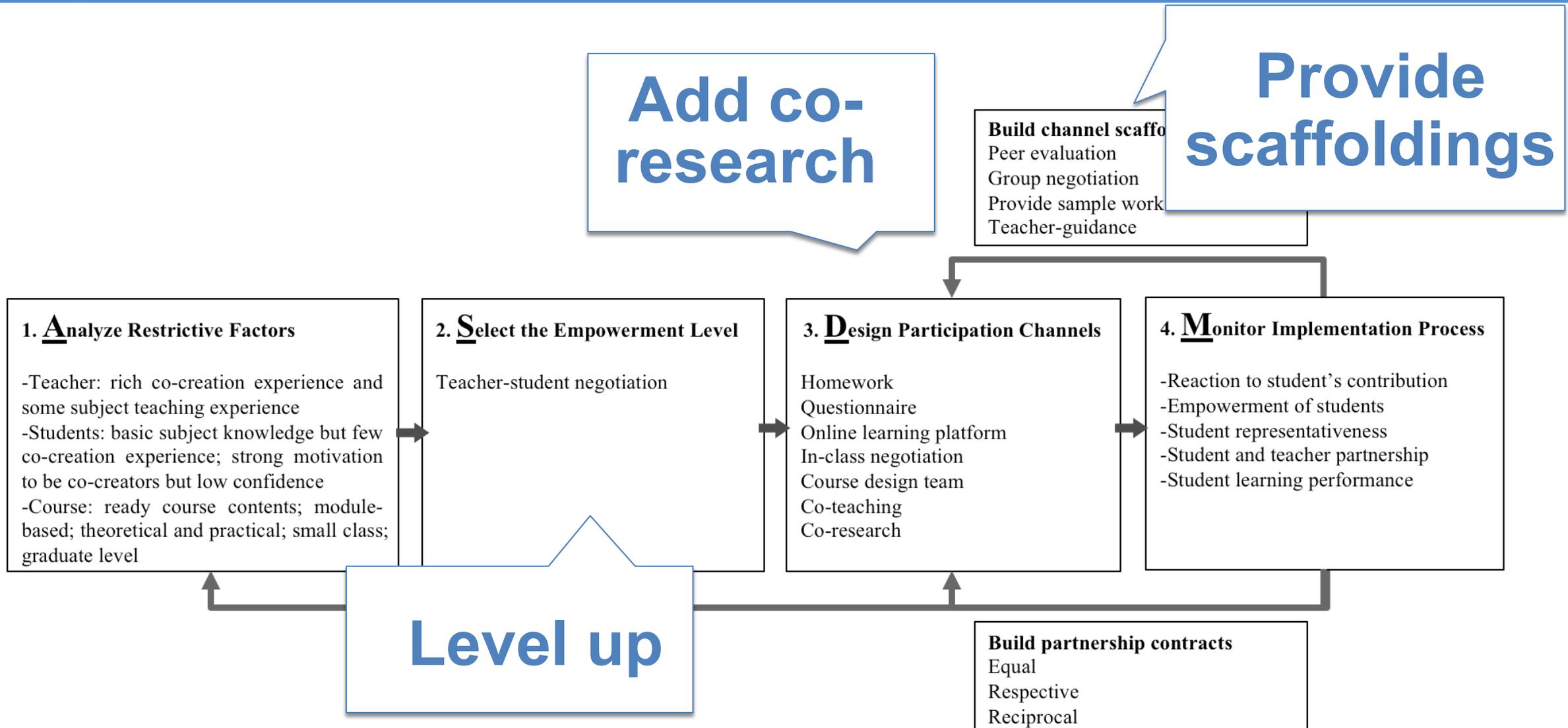
# Results and reflections of Cycle one.

1. Students' Satisfaction & Response promptness
  - Most contributions come from Homework and Questionnaires
  - Online learning platform is the most welcomed channel
2. Co-design based learning environment
  - In-class negotiations were not effective
3. Quality of student-led instructions
  - Most are team-based presentations
  - Not enough time to have deep discussions
4. Special value: Co-Research and Co-Teaching

# Identify ASDM model in the process.



# Cycle two: student-teacher negotiation.



# Results and reflections of Cycle two.

1. Co-teaching was more productive
  - Guidance from the instructors in the Course design team
  - Interactions among students on the Online learning platform
2. Course design team improved but still teacher-dominated
  - Most welcomed channel
  - Students were more representative; More contributions generated;
  - Most were teacher utterances; not efficient (silent time)
3. Homework was more satisfying
  - More contributions
  - Higher reaction ratio

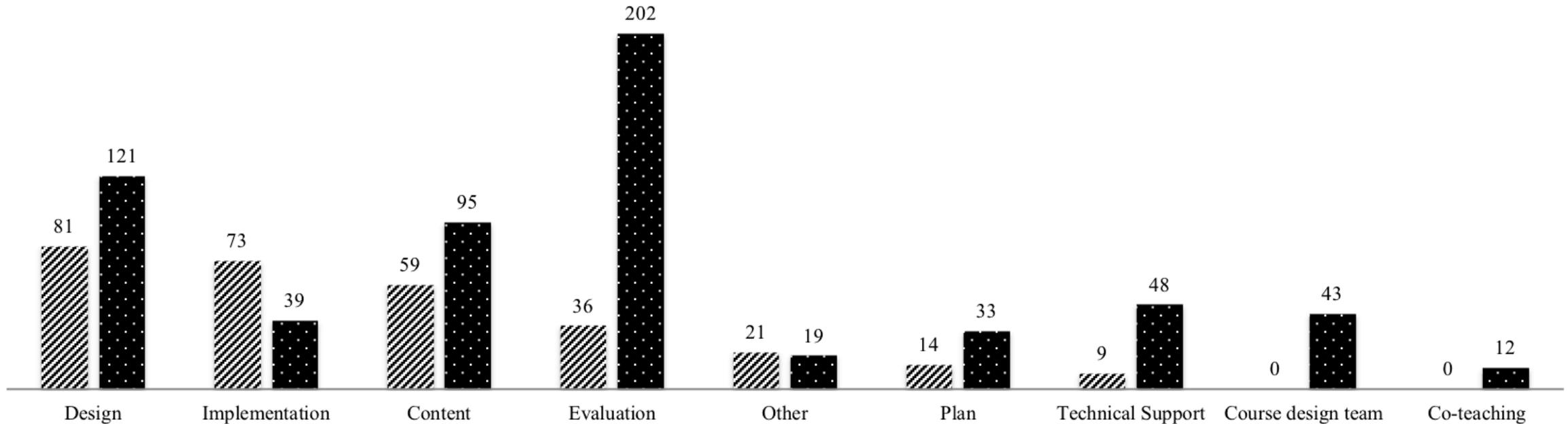
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# Comparison of two-cycle practice.

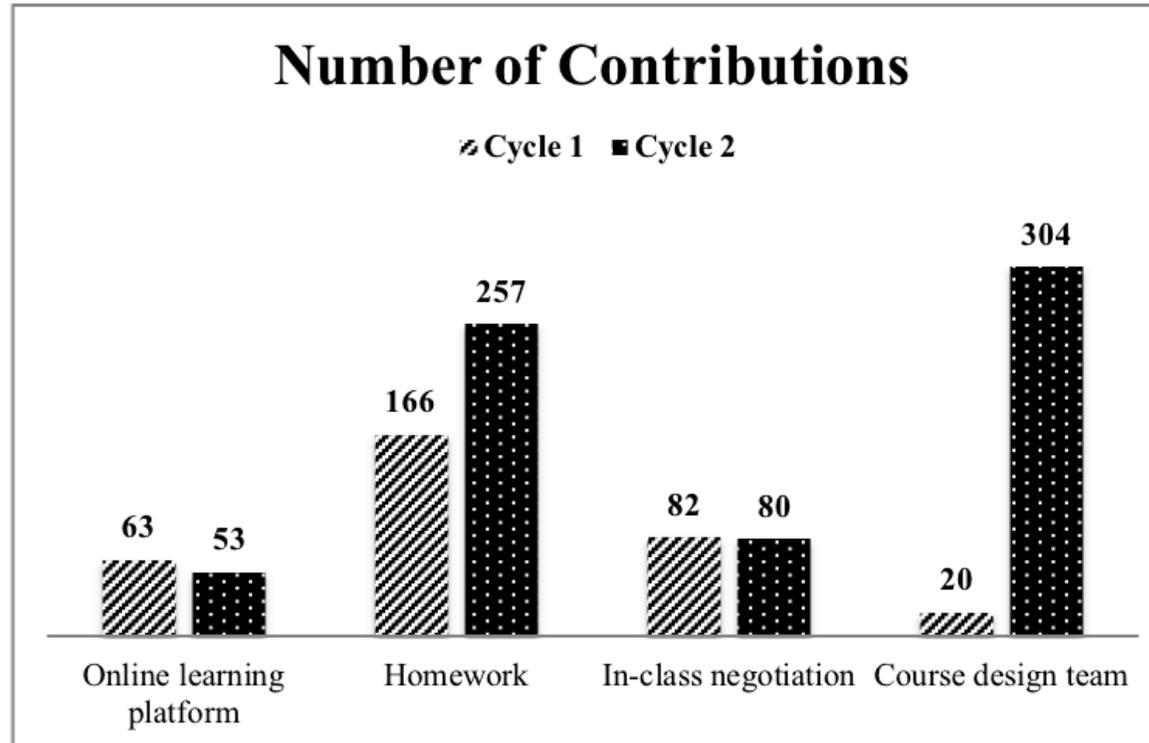
## Referred Curriculum Factors in Two Cycles

▨ Cycle 1 ■ Cycle 2



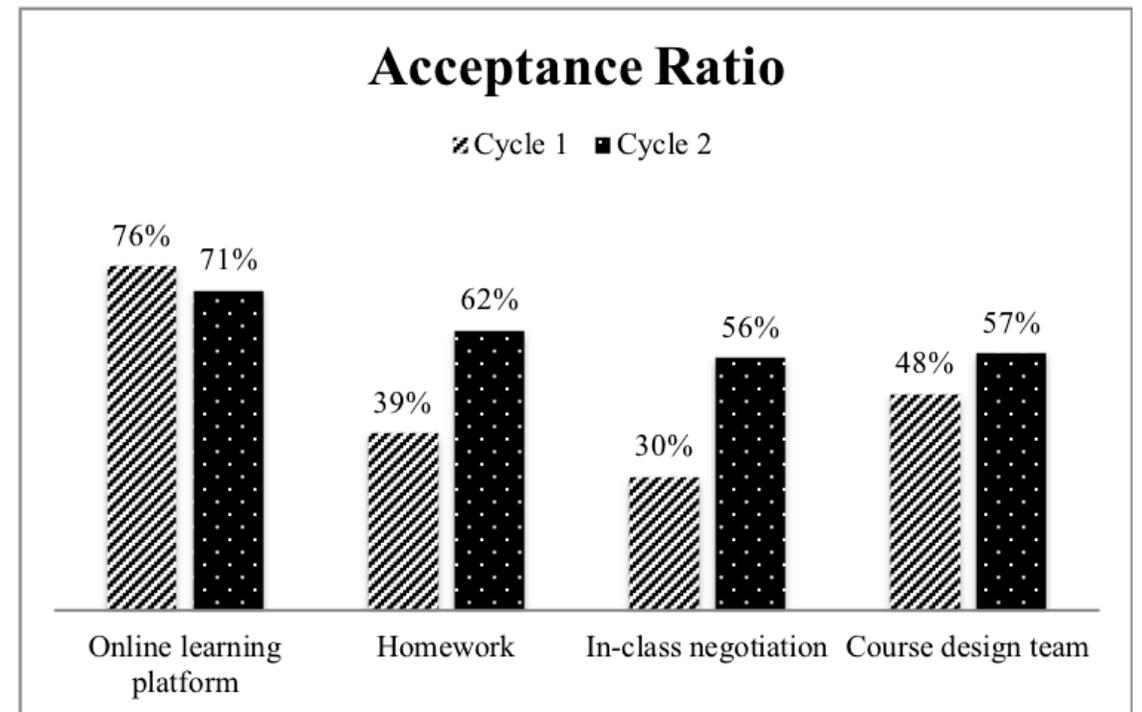
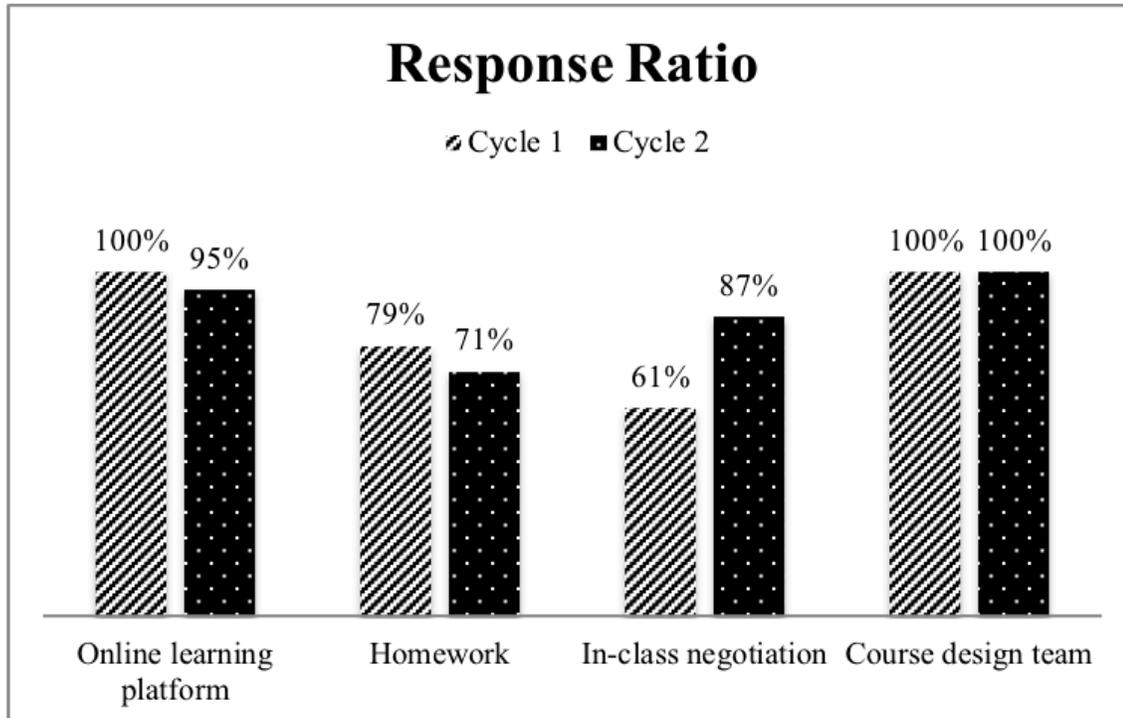
- Coverage of curriculum factors: *Design, Evaluation, Content, Implementation*
- Higher *Evaluation* in cycle two

# Comparison of two-cycle practice.



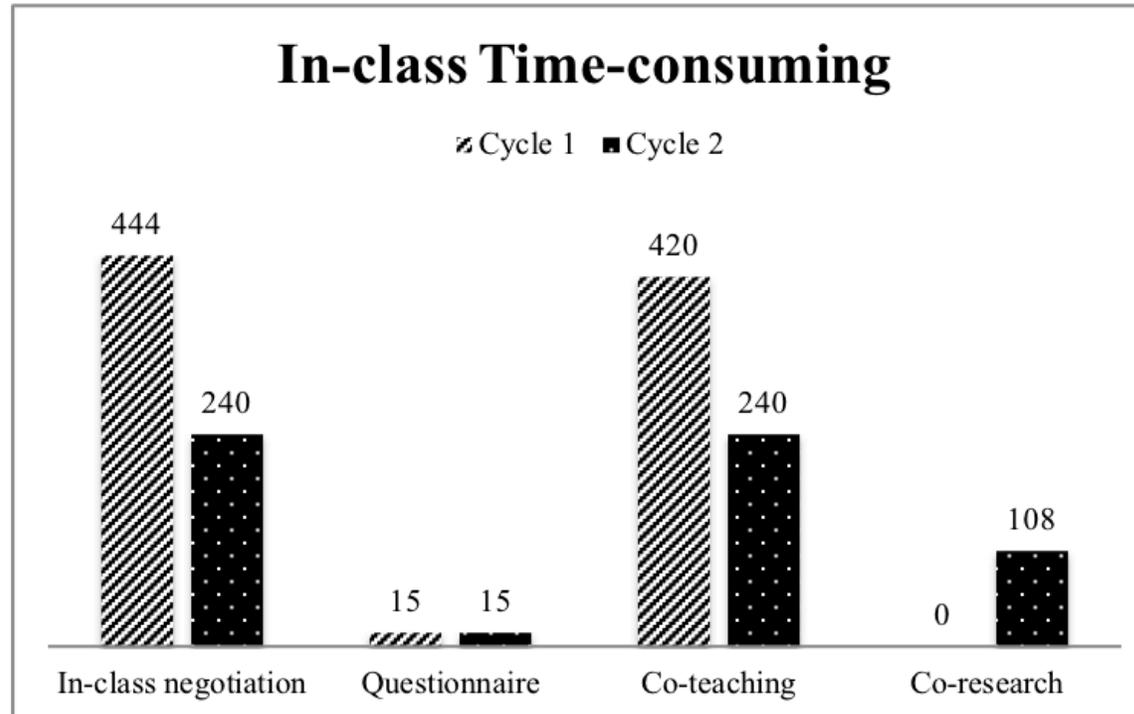
- Homework generated more active contributions in both cycles
- Course design team in Cycle two was quite productive

# Comparison of two-cycle practice.



- *Response and acceptance ratio of in-class negotiation* became much better in cycle two
- Response ratio of Homework decreased due to larger amount of contributions in cycle two
- Best channels (Online learning platform in Cycle one and Course design team in Cycle two) seem to correlate with response ratio

# Comparison of two-cycle practice.



- *In-class negotiation* and *Co-teaching* (both around 11 hours, 23% of the total course) spent the most in-class time.

# Multiple benefits were confirmed: Learning.

“I think it is very necessary to ask students to take part in the curriculum design. Because students have more chances to communicate with each other, every student can know about other students’ real ideas.” *(Data source: a student’s reflection journal in the 5th class of cycle one)*

## **Learning as a co-designer**

“I practiced more than 5 times about the presentation before the class... I overcame these differences and difficulties, and made the best efforts I could to the class. I think I can do these things better and better in the future!” *(Data source: a student’s reflection journal in the 9<sup>th</sup> class of cycle two)*

## **Learning through Co-teaching**

## Multiple benefits were confirmed: Curriculum.

The instructor made sure bilingual teaching in the process. He asked students to try translating what he said, which could not only scaffold students' understanding of content knowledge, but also allow them time to digest and strengthen their English ability. However, this also lowered the overall teaching progress. *(Data source: a field note on the 7<sup>th</sup> class of cycle two)*

### **Bilingual Course**

## Multiple benefits were confirmed: Teaching.

“As to my personal learning needs, I care more about how to analyze the structure of questionnaire, how to ensure the reliability and validity of the survey, and how to conduct surveys scientifically. Therefore, I didn’t learn too much from this lesson. Most have been learnt before.” (*Data source: a student’s reflection journal in 7<sup>th</sup> class of cycle one*)

### Instructional Design

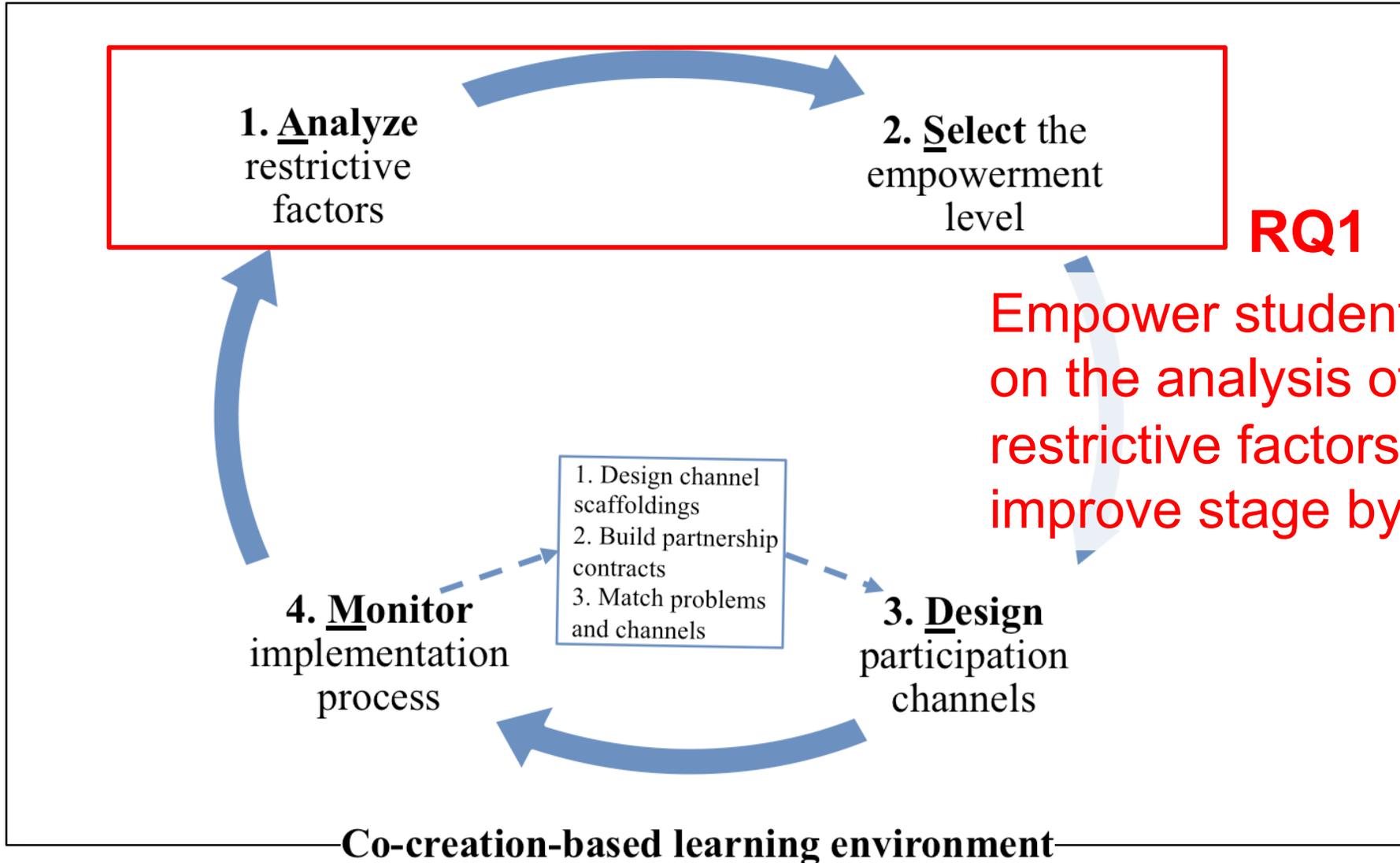
# Typical challenges consistent with prior work.

- Typical Challenges in the Process
  1. Traditional concepts (Delpish, 2010; Neary, 2012).
    - Students' disappointment
    - Inauthentic dialogues
  2. Response to students' feedback (McCulloch, 2009)

# Efficiency perspective

- Efficiency requires achieving optimum co-design experience with the lowest cost
  1. Overemphasis on co-design experience
    - In-class time
  2. No clear contracts
  3. Overemphasis on democracy

# Revised ASDM model.



# Revised ASDM model.

1. Analyze restrictive factors

2. Select the empowerment

How to design appropriate scaffolding to support students' participation in the curriculum design?

4. Monitor implementation process

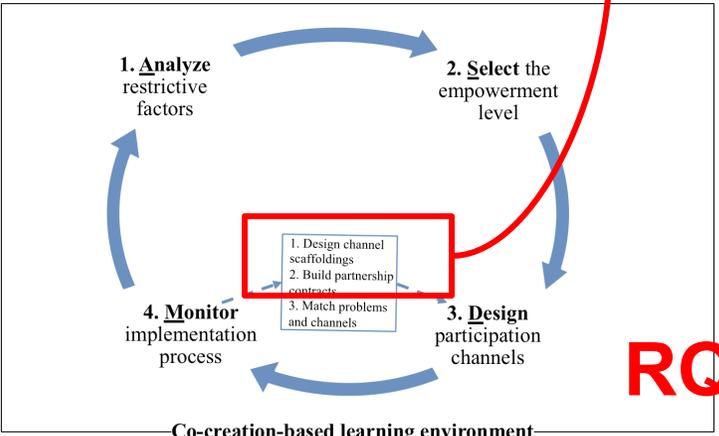
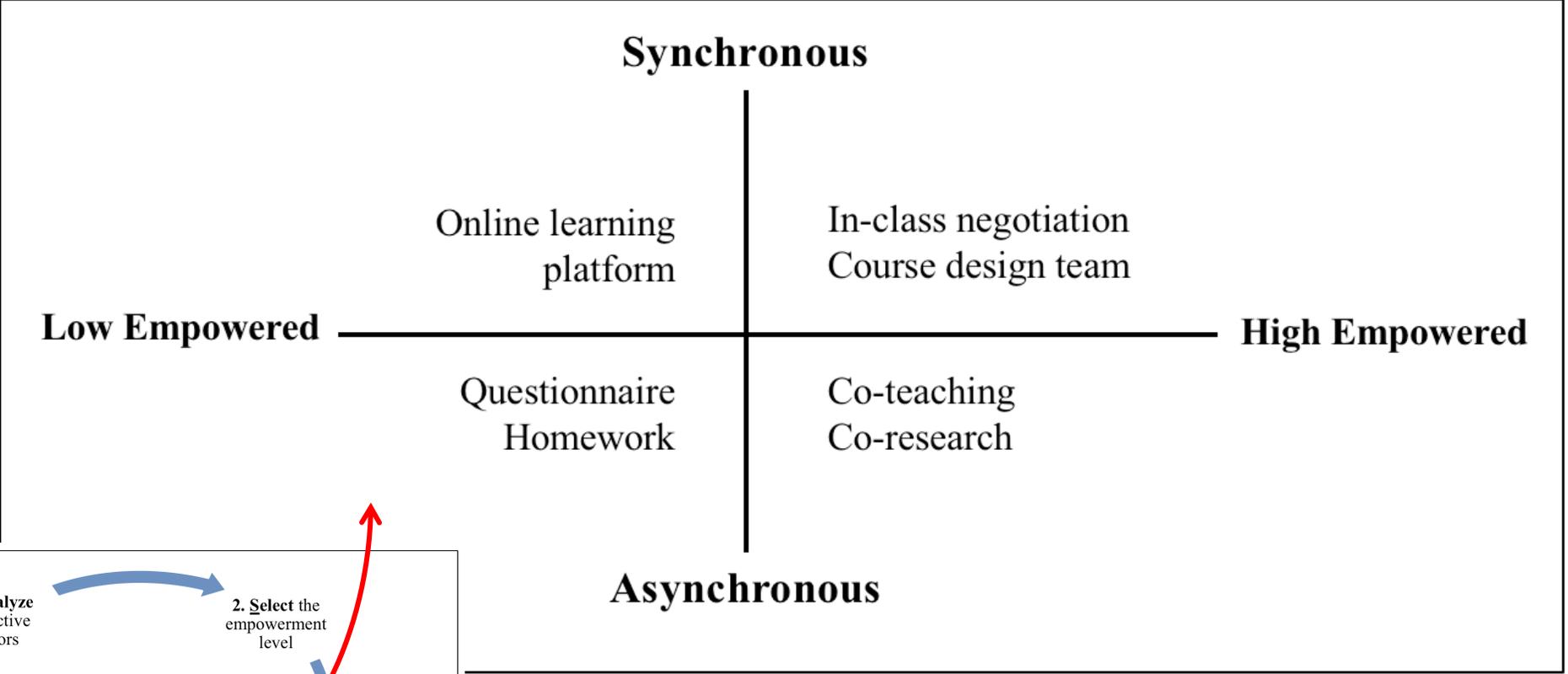
1. Design channel scaffoldings
2. Build partnership contracts
3. Match problems and channels

**RQ2**

3. Design participation channels

Co-creation-based learning environment

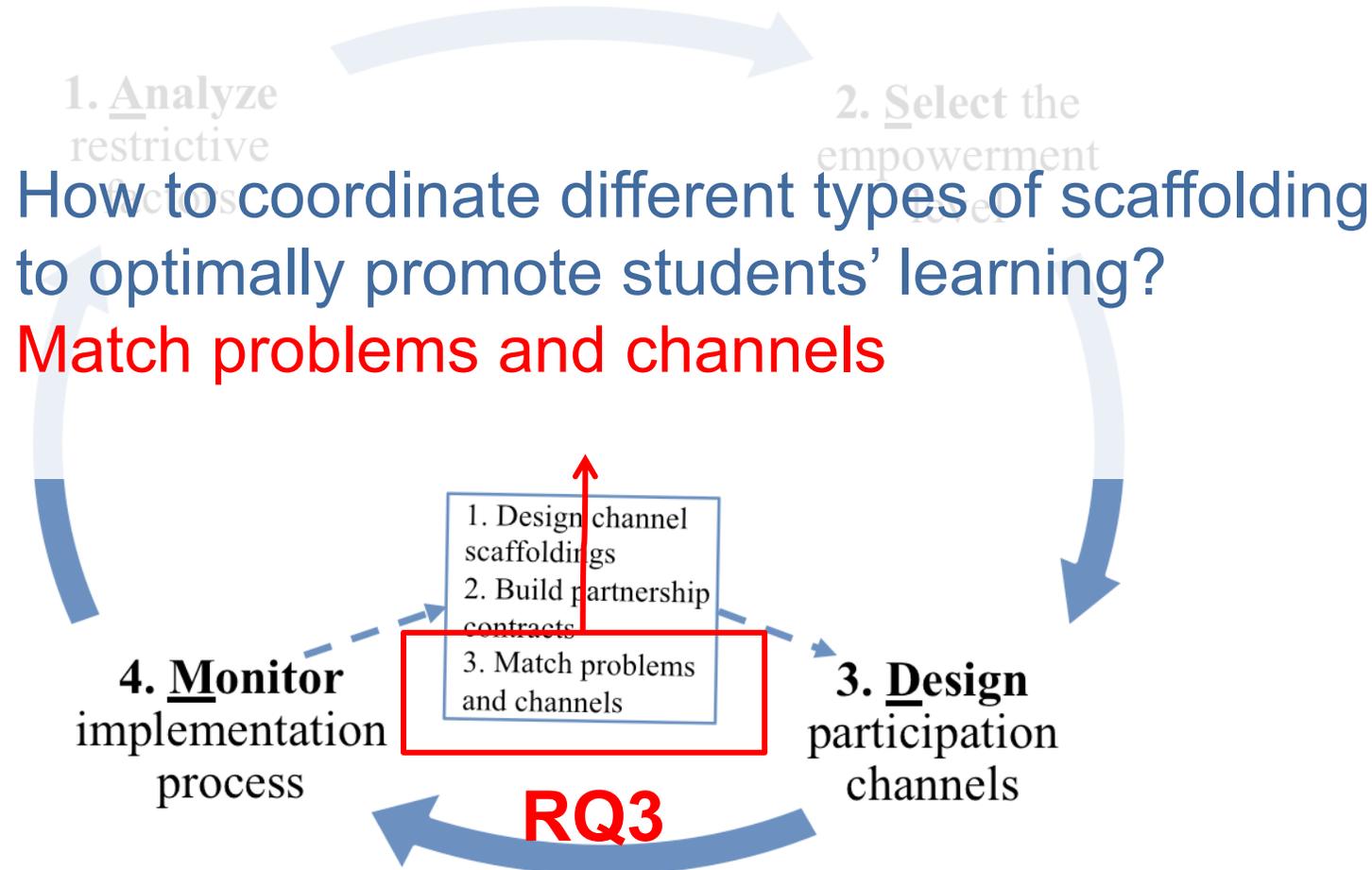
# We revised the ASDM model based on two cycles.



**RQ2**

Different types of channels have different challenges and accordingly need different scaffoldings

# Revised ASDM model.



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# Conclusions

## Involve *Students as Co-designers* through the *ASDM* model

- *Analyze-Select-Design-Monitor*
- Effectiveness:
  1. A co-design based learning environment
  2. Some scaffoldings are needed in the initial stage
- Efficiency:
  1. Maximize in-class time value
  2. Classification of problems and participation channels

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# THANK YOU

Any Comments and Suggestions Are Welcomed!