IMPLEMENTATION OF *STUDENTS AS CO-CREATORS OF CURRICULA*
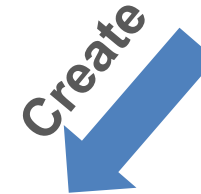
——A DESIGN-BASED STUDY ON A BILINGUAL GRADUATE COURSE

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Content

There are some similar concepts

- 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.

WHY

How to help students take these challenging roles?

- How to motivate and scaffold students' participation in the course co-creation still remains open

- This study aims to provide practical guidance for the generalization of this learning design principle.

Content

Research on student engagement & voice

- The existing three types of engagement (behavioral, cognitive, and emotional) captured only the reaction of students on the instruction but not their constructive contribution to the flow of instruction (Reeve &Tseng,2011)

- Research on student voice started from *Consulting Pupils about Teaching and Learning Project* in 2003

- *Students as Co-Creators of Curricula* is also viewed as more authentic student engagement (Bryson, 2016)

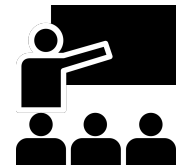# They had developed multiple channels.

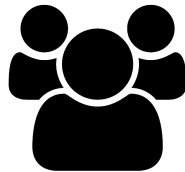**Participation Channels**

(Questionnaire)

(Interview)

(Online Learning Platform)

(In-Class Negotiation)

(Course Design Team)

(Co-Teaching)

(Co-Research)

etc.

Prior Work

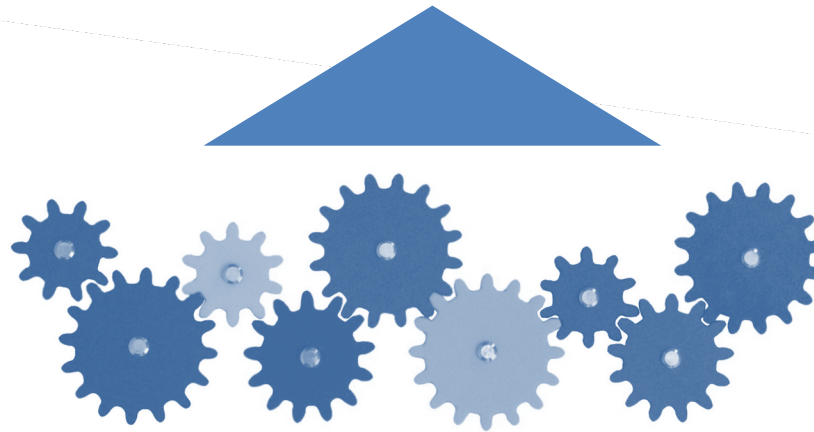# Its multiple benefits have been evidenced.

Teacher + Students + Curriculum

Multiple Benefits through involving students creating the curriculum together

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

They had identified some restrictive factors.

Restrictive Factors

- 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)

They had met some common challenges.

Common Challenges

- 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)

GAP

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. To what extent should we **empower** students when implementing *Students as co-creators*?
  2. What are the characteristics and challenges of different **participation channels** and how do we address these challenges?
  3. How do we **coordinate** different channels to optimally promote students' learning?

Content
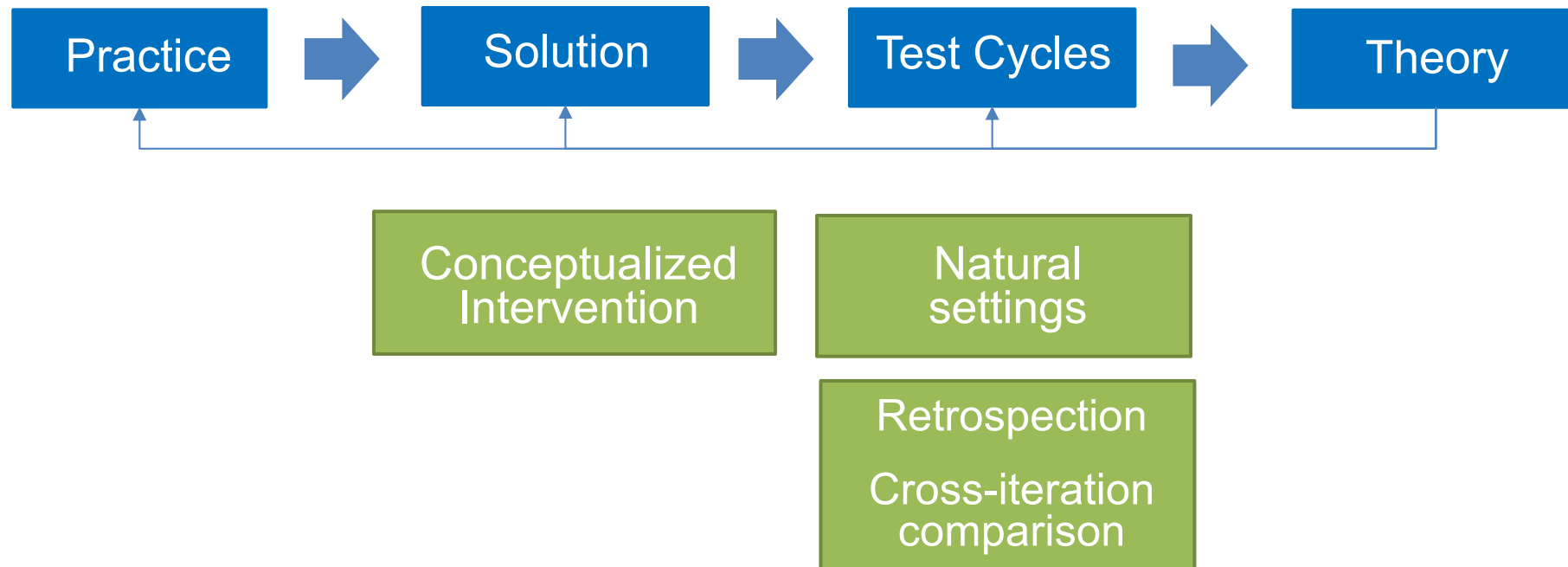
How were participants and settings?

Design-based Research
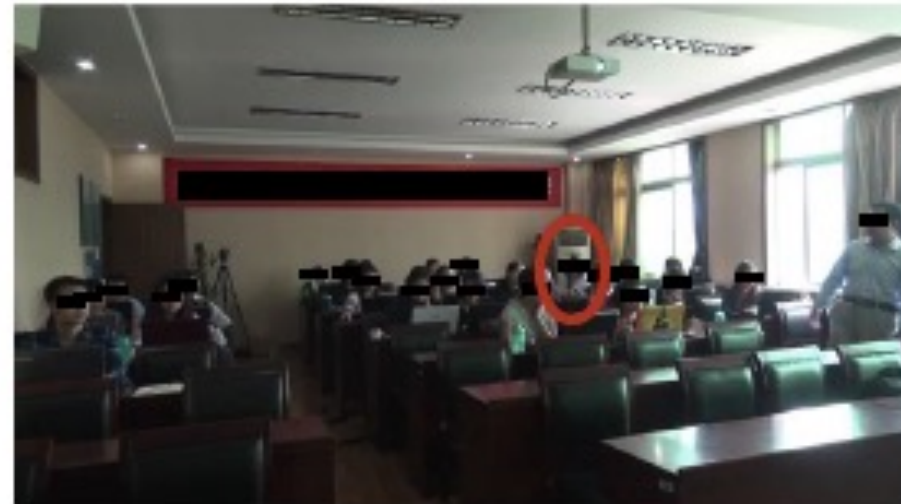
- A bilingual course for graduate students on *Educational Research Methods.*

- In mainland China

- Two cycles
  - Semester of 2014 Fall: 26 students
  - Semester of 2015 Fall: 21 students

We collected multiple-source data.

Participation channels	Data source
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 papsers
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)

Content

We designed a prototype called *ASDM* model.

1. **Analyze** restrictive factors

2. **Select** the empowerment level

3. **Design** participation channels

4. **Monitor** implementation process
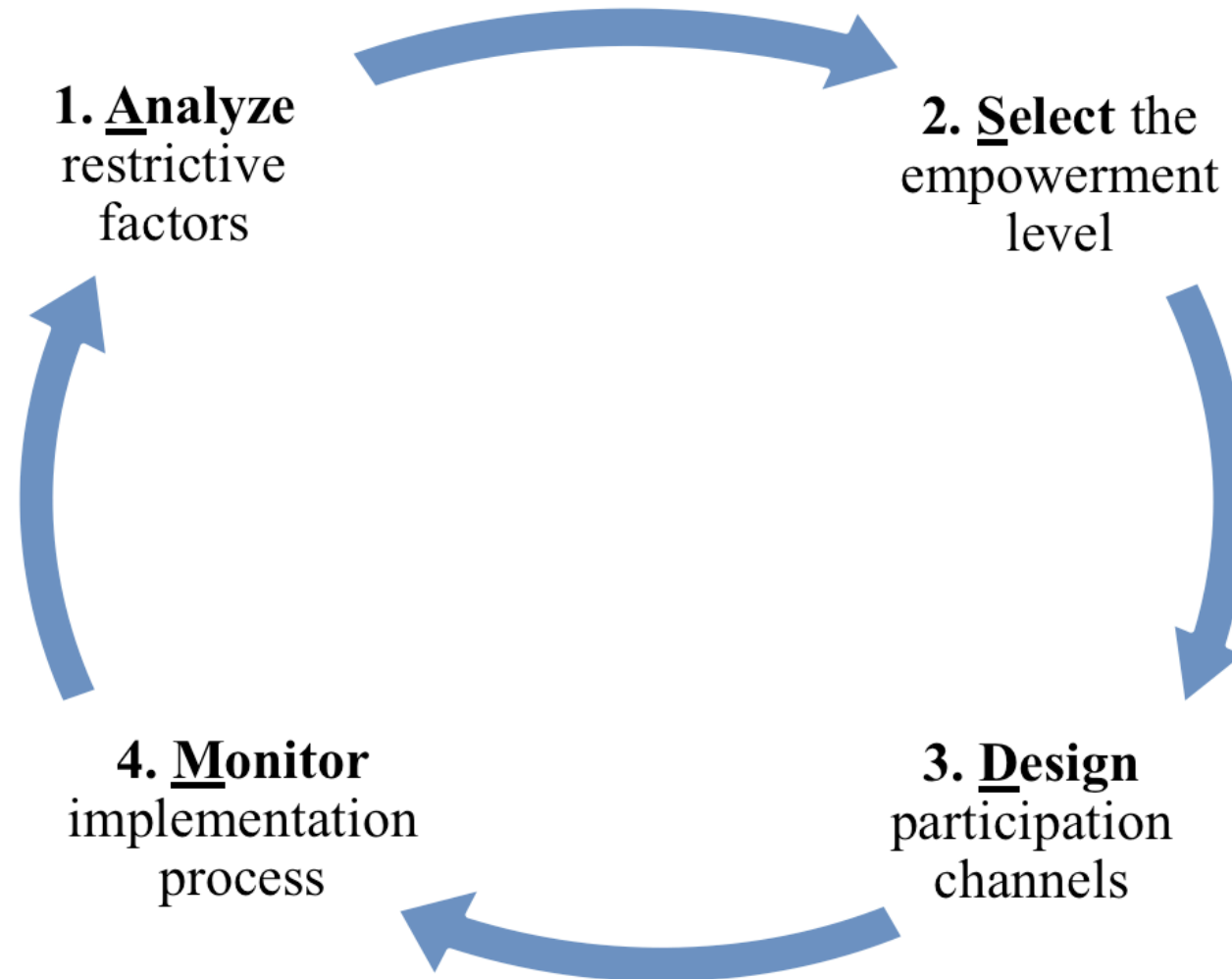
We revised students empowerment level.

Cycle one adopted a level 2 participation.

1. Analyze Restrictive Factors

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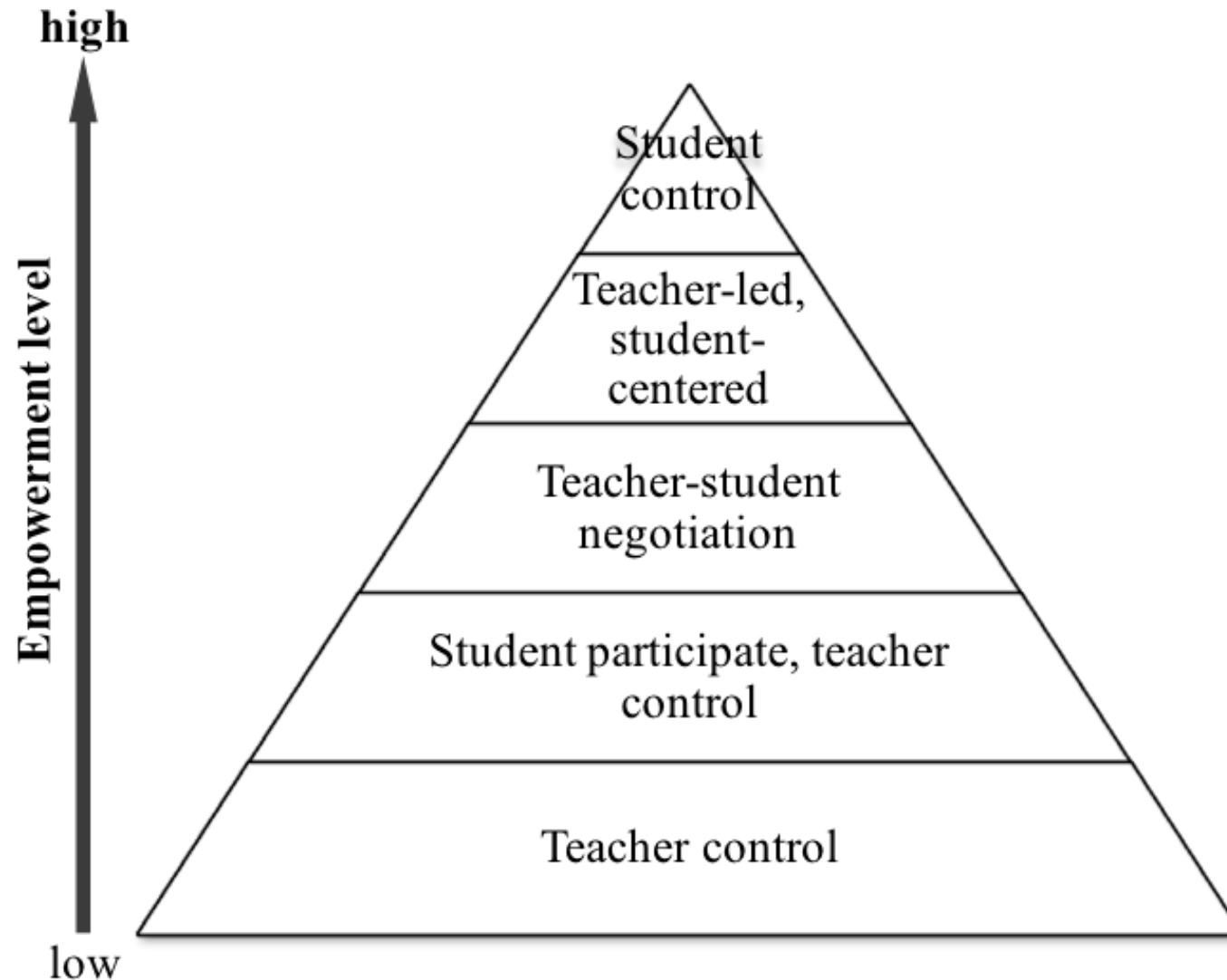-Course: no ready course contents; module-based; theoretical and practical; small class; graduate level

2. Select the Empowerment Level

Student participate, teacher control

3. Design Participation Channels

Homework
Questionnaire
Online learning platform
In-class negotiation
Co-teaching
Course design team

4. Monitor Implementation Process

-Reaction to student's contribution
-Empowerment of students
-Student representativeness
-Student and teacher partnership
-Student learning performance

What insights did we get from Cycle one?

- Reflections on Cycle One

1. Students' Satisfaction & In Time Response
   - Most feedback come from Homework and Questionnaires
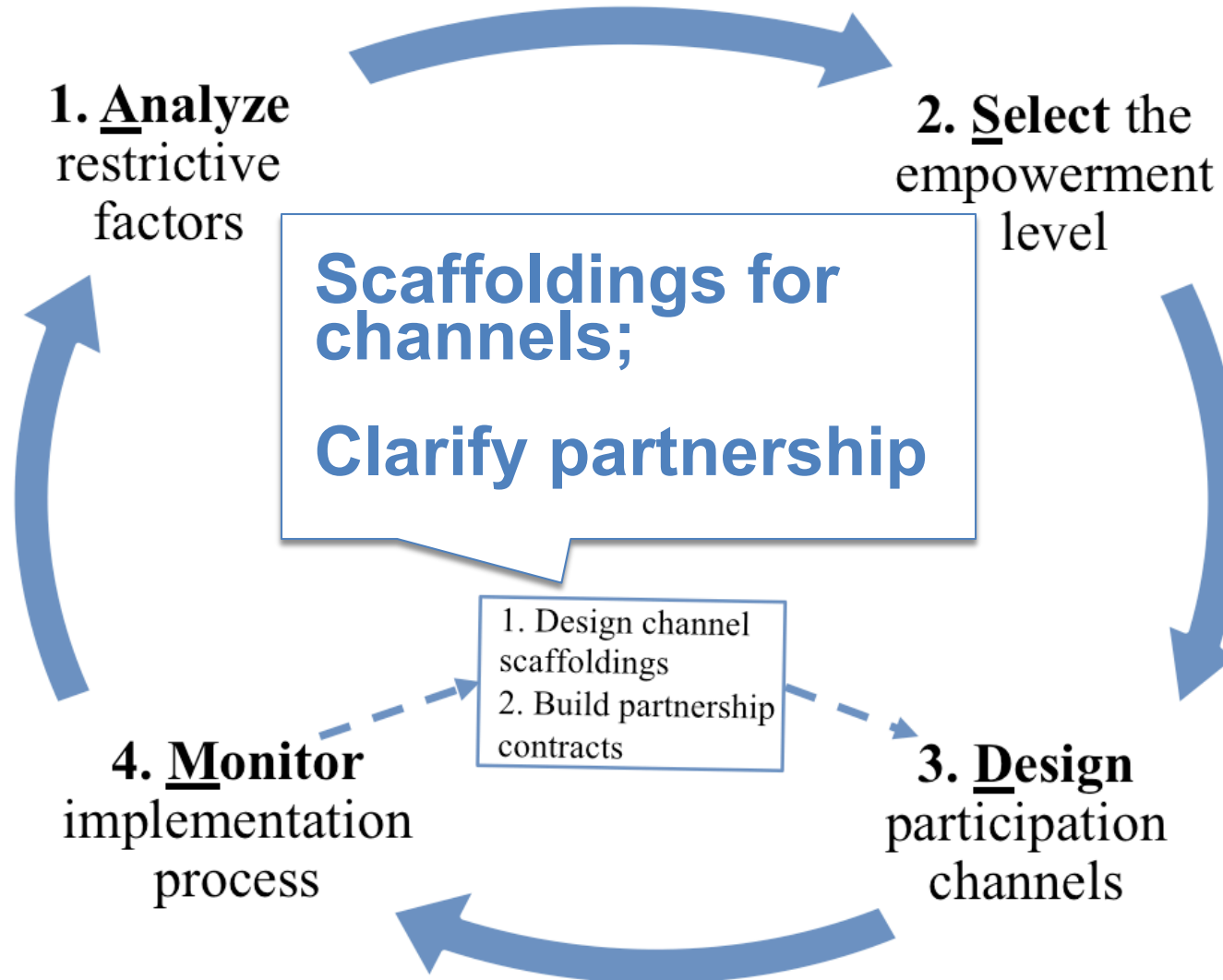   - Online learning platform is the most welcomed channel

2. Co-creation 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

We revised the ASDM model based on Cycle one.

Cycle Design

1. **Analyze** restrictive factors

2. **Select** the empowerment level

3. **Design** participation channels

4. **Monitor** implementation process

1. Design channel scaffoldings
2. Build partnership contracts

Scaffoldings for channels;

Clarify partnership
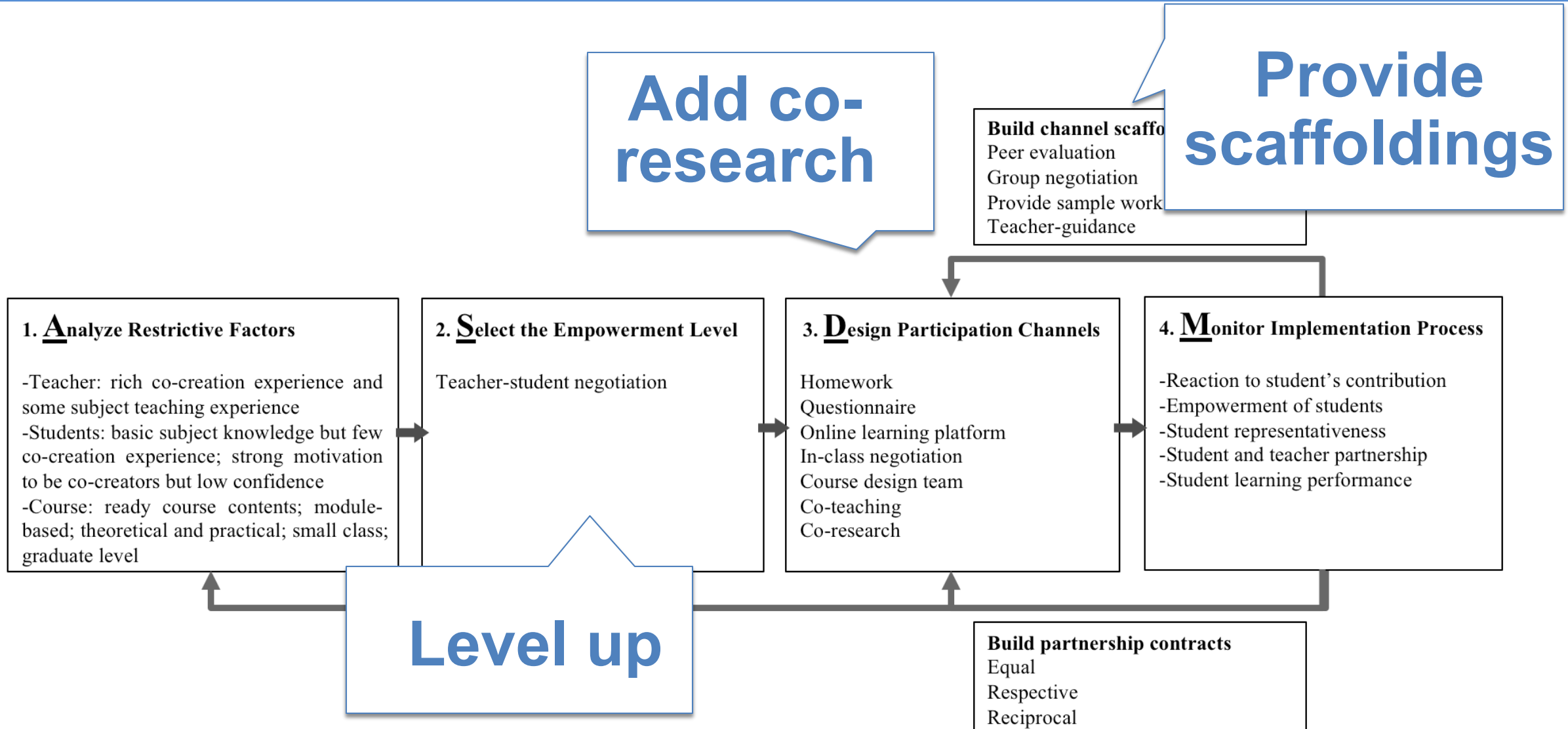
What did we find from Cycle one?

- Reflections on 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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What did we find from two cycles?

Referred Curriculum Factors in Two Cycles
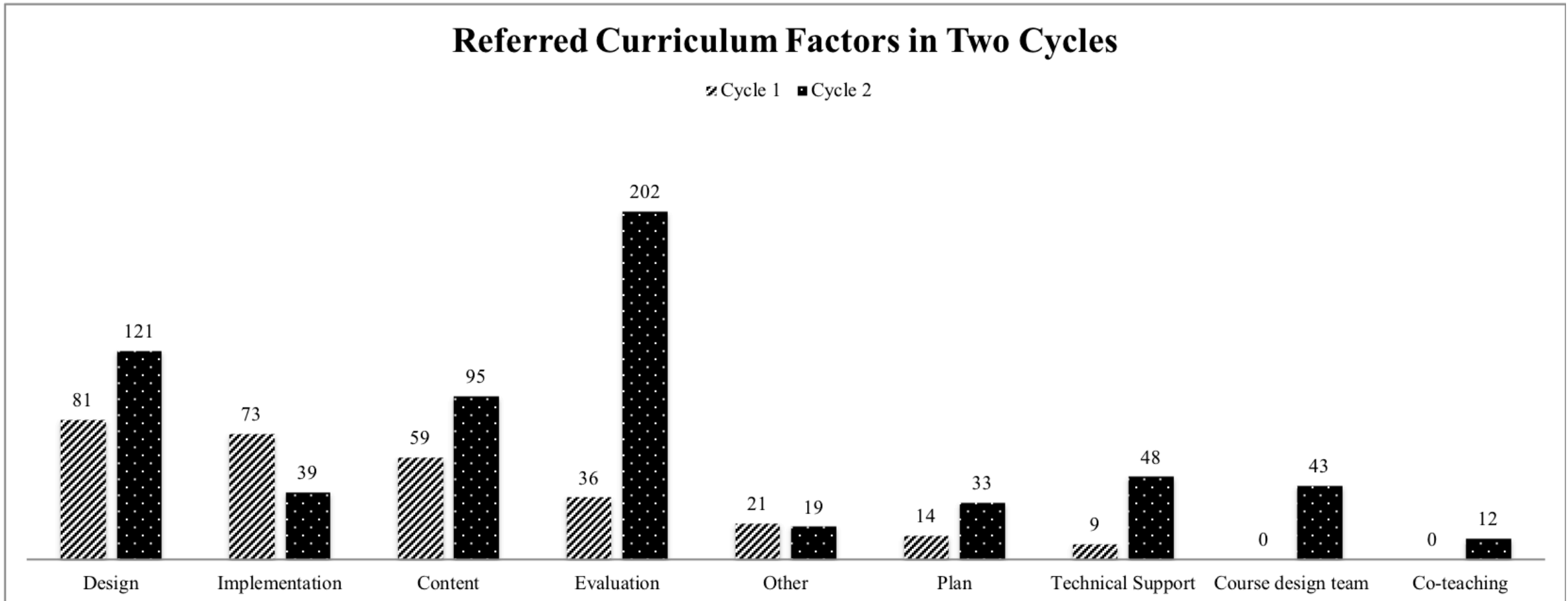
- Coverage of curriculum factors: *Design, Evaluation, Content, Implementation*
- Higher *Evaluation* in cycle two

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What did we find from two cycles?

Number of Contributions

Cycle 1 Cycle 2
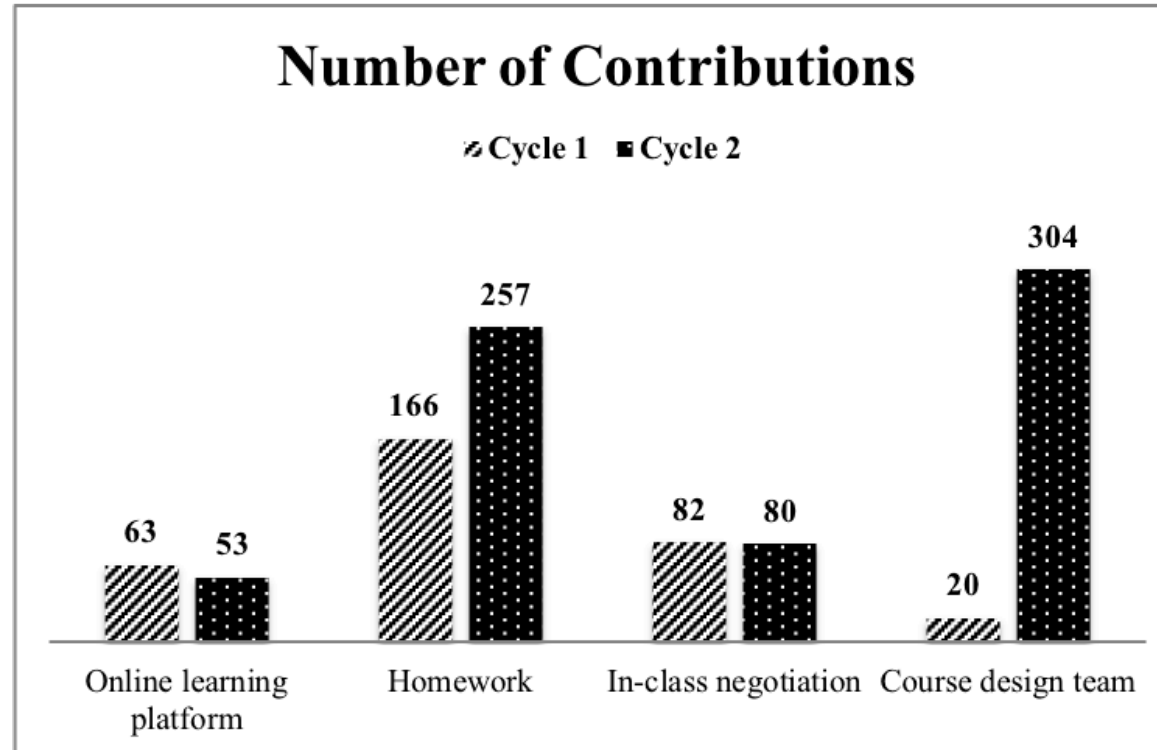
- Homework generated more active contributions in both cycles
- Course design team in Cycle two was quite productive

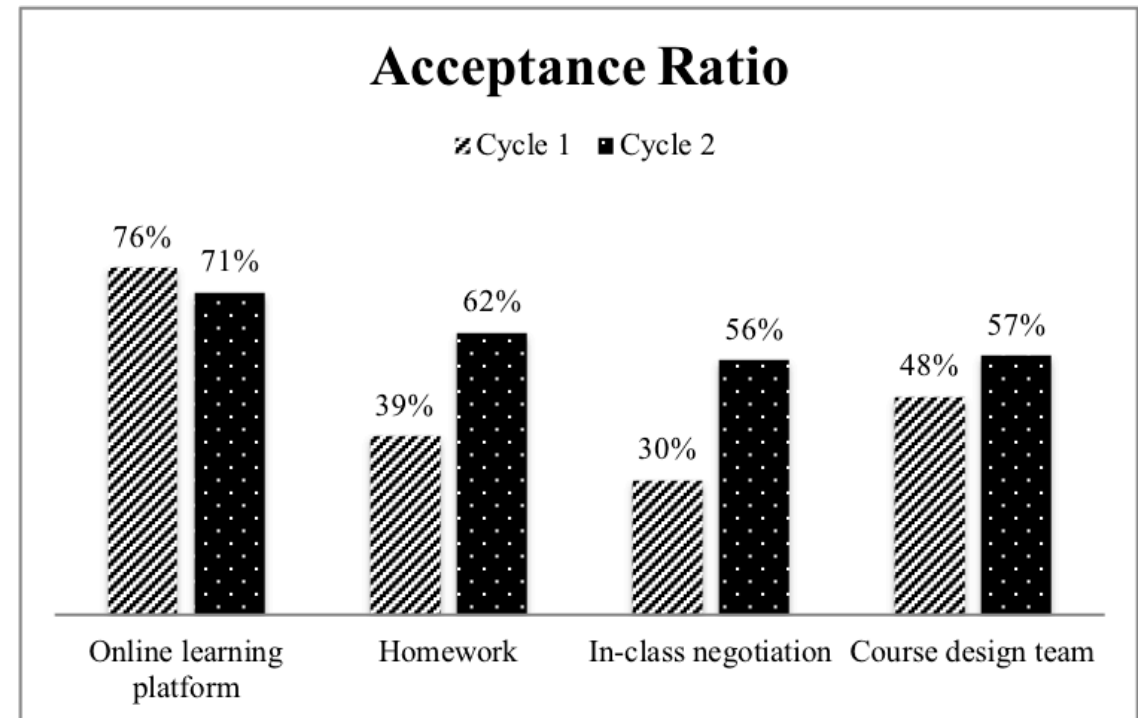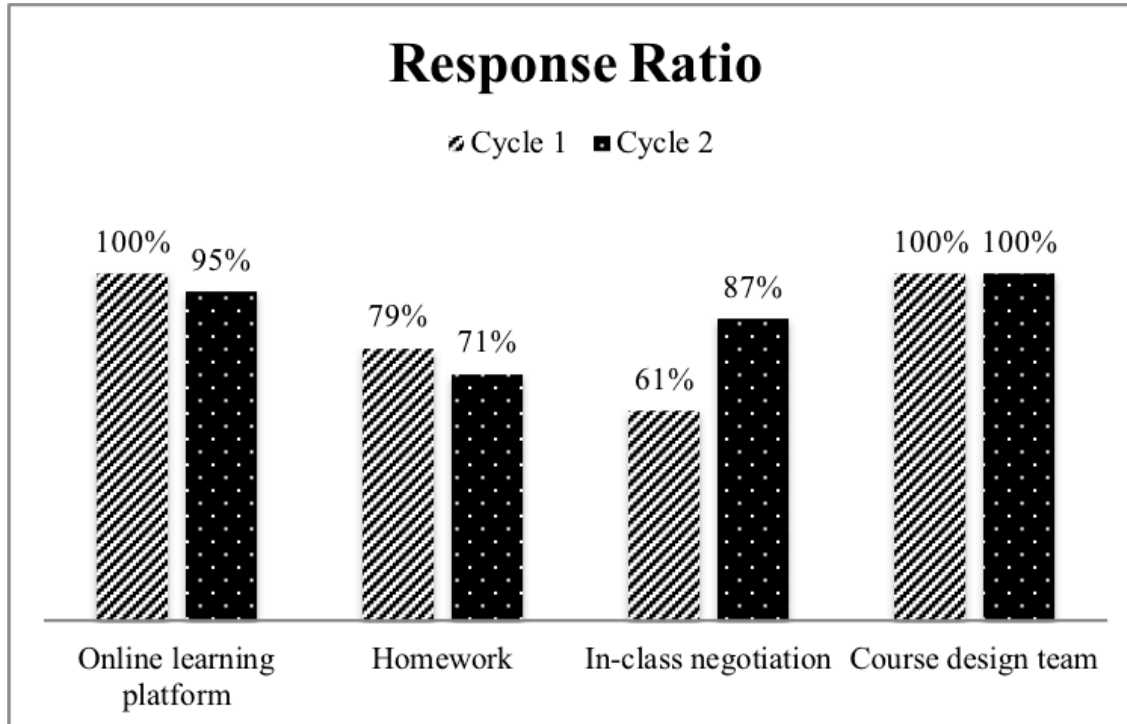# What did we find from two cycles?

Response Ratio

Cycle 1 ■ Cycle 2

- Online learning platform: 100% / 95%
- Homework: 79% / 71%
- In-class negotiation: 61% / 87%
- Course design team: 100% / 100%

Acceptance Ratio

Cycle 1 ■ Cycle 2

- Online learning platform: 76% / 71%
- Homework: 39% / 62%
- In-class negotiation: 30% / 56%
- Course design team: 48% / 57%

- *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 reaction ratio

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What did we find from two cycles?
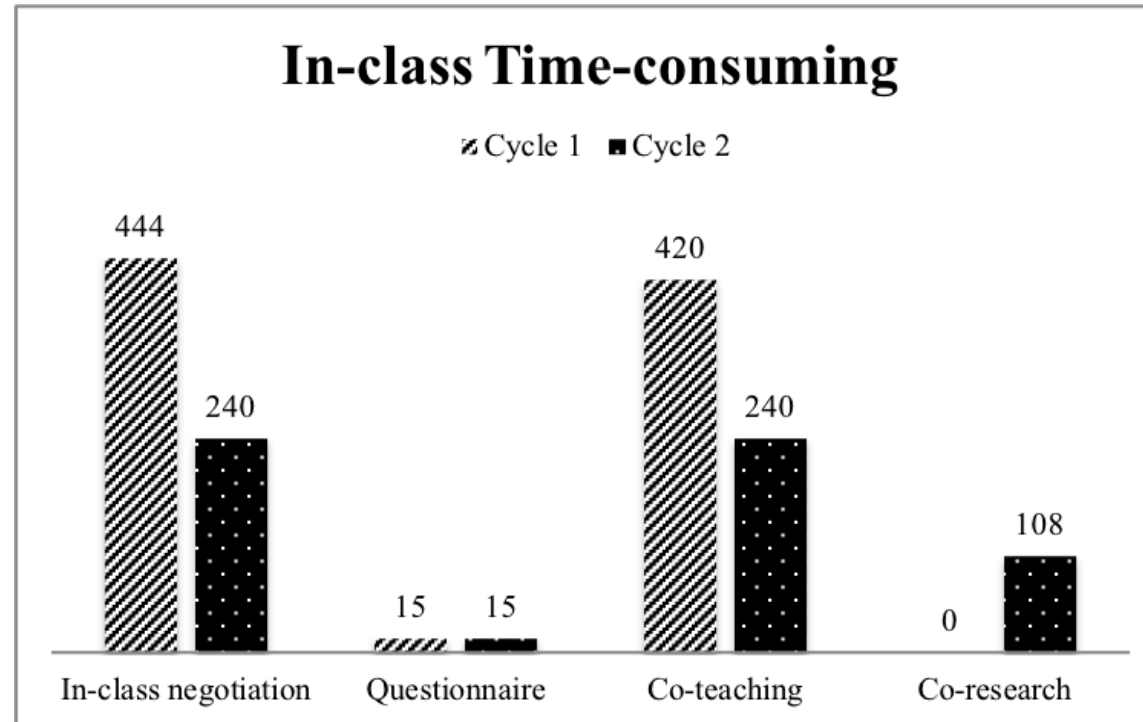
- *In-class negotiation* and *Co-teaching* (both around 11 hours, 23% of the total course) spent the most in-class time.

Multiple benefits were reconfirmed: Learning.

"I think it is very necessary to ask students to take part in the curriculum design. Because students have more chances to communicate [*sic*] 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)*

"We are normal university students, so taking part in the curriculum design will give us a chance to experience teaching practice which we should cherish." *(Data source: a student's response in the post-course survey of cycle one)*

Learning as co-creator

Multiple benefits were reconfirmed: Learning.

"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 9th class of cycle two)*

"… We could easily find that this group had really prepared for a long time patiently. This is what we should take example by." *(Data source: a student's reflection journal in the 12th class of cycle two)*

Learning through Co-teaching

Multiple benefits were reconfirmed: Teaching.

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 7th class of cycle two*)

Bilingual Course

Multiple benefits were reconfirmed: 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 7th 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-creation experience with the lowest cost

  1. Overemphasis on co-creation experience
     o In-class time
  2. No clear contracts
  3. Overemphasis on democracy
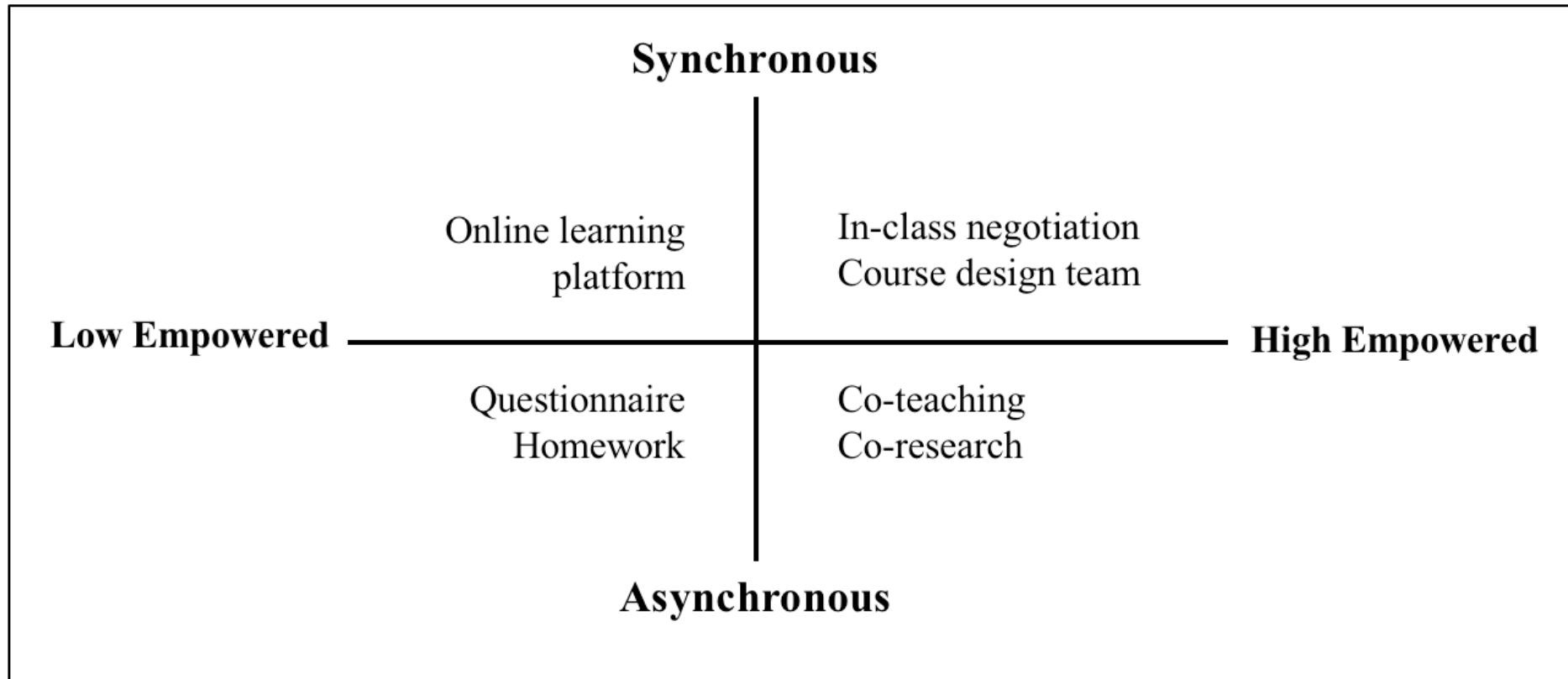
Back to three questions.

Question 1

- Empower students based on the analysis of relevant restrictive factors

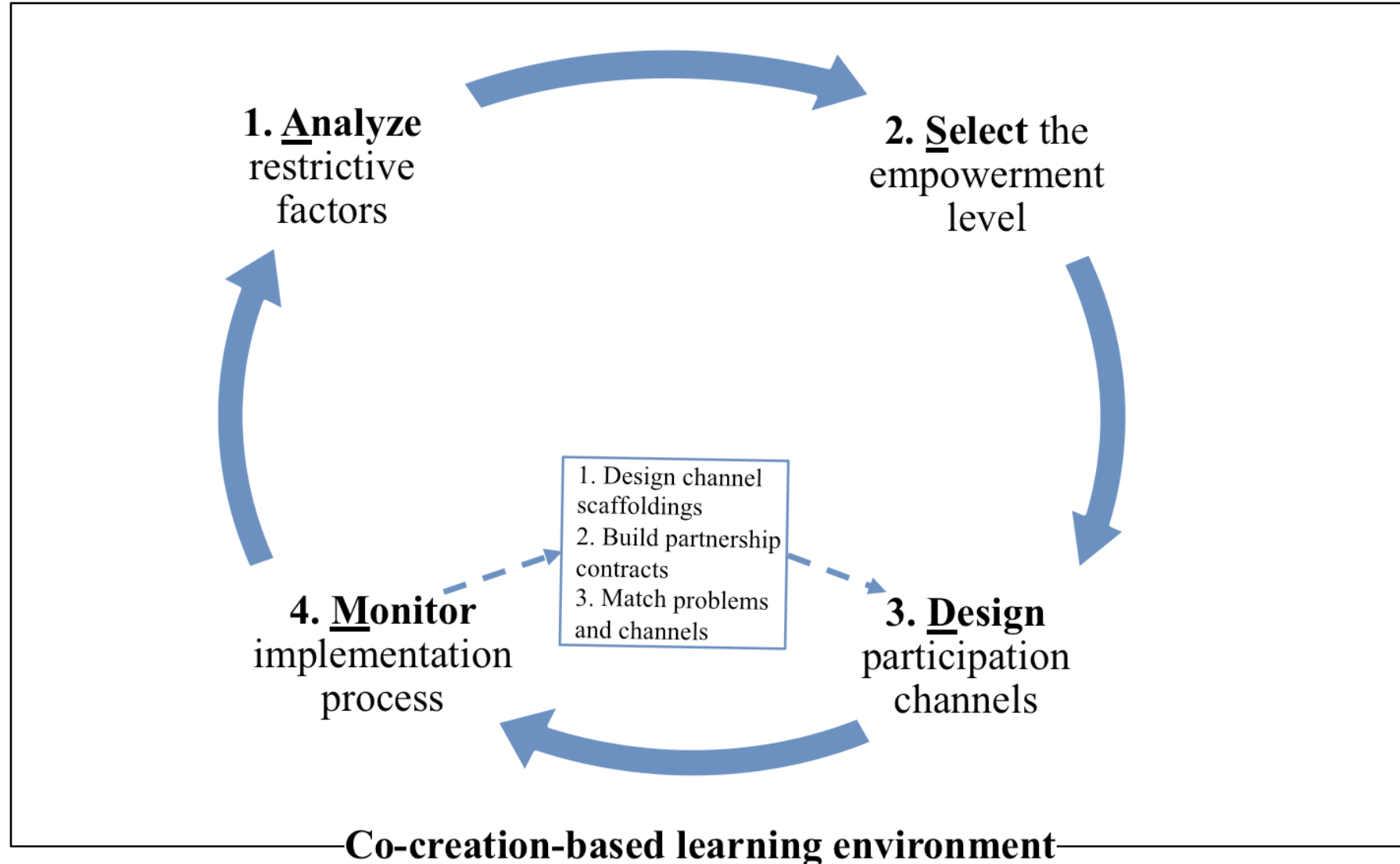# We revised the ASDM model based on two cycles.
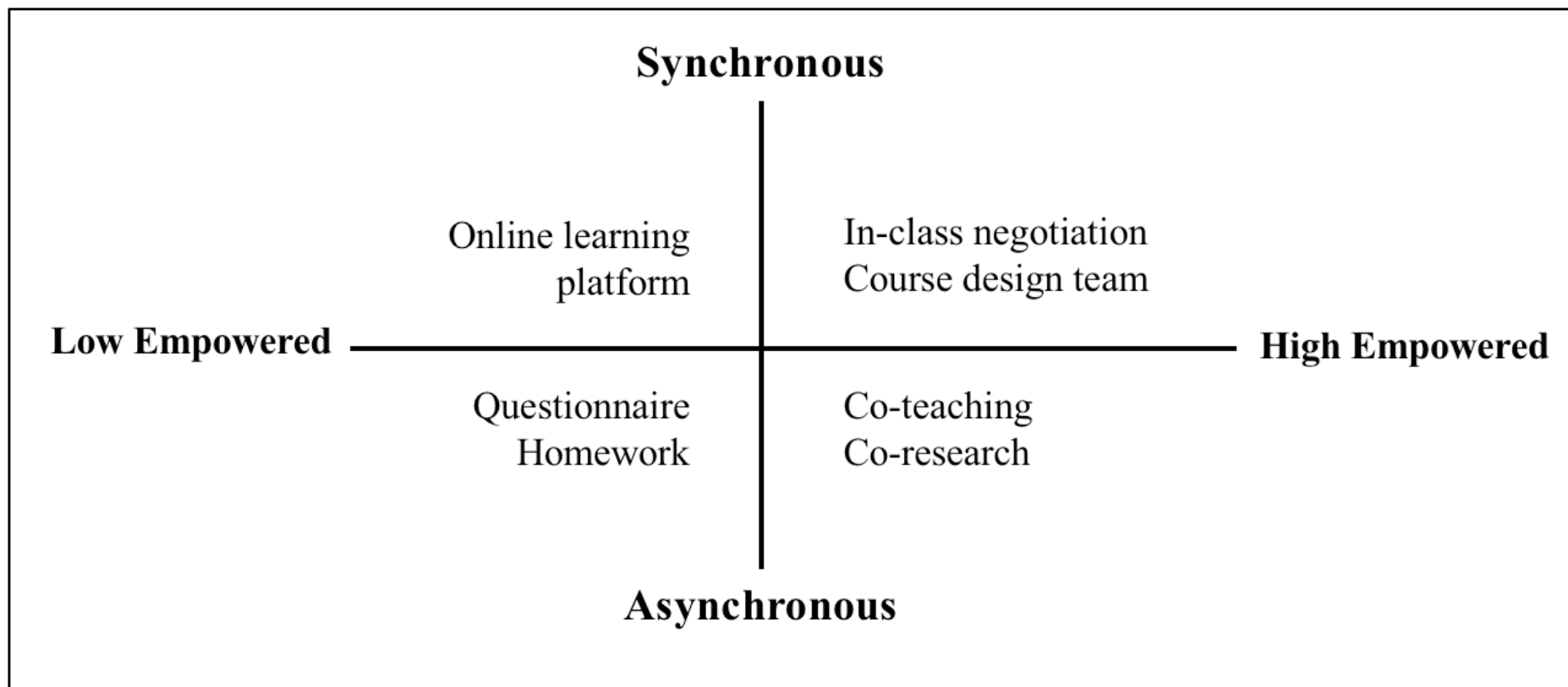
Question 2: Different types of channels have different challenges and accordingly need different scaffoldings

We revised the ASDM model based on two cycles.

Question 3: Optimize students' learning experience through matching channels' and problems' characteristics

Revised ASDM model.

Content

What do we conclude?

Involve *Students as Co-creators* through *ASDM* model

- *Analyze-Select-Design-Monitor*

- Effectiveness:
    1. A co-creation 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

Students as Co-creators of curricula should be generalizable to broader educational contexts following a ASDM strategy.

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Content

Questions to be discussed?

1. Should we scale up the Students as co-creators of curricula principle?

2. What are the challenges facing the design-based research methodology?

THANK YOU

Any Comments and Suggestions Are Welcomed!