



# HCI International 2017

Vancouver, Canada, 9 - 14 July 2017

Vancouver Convention Centre

## ECoLab: A cooperative system to improve training processes

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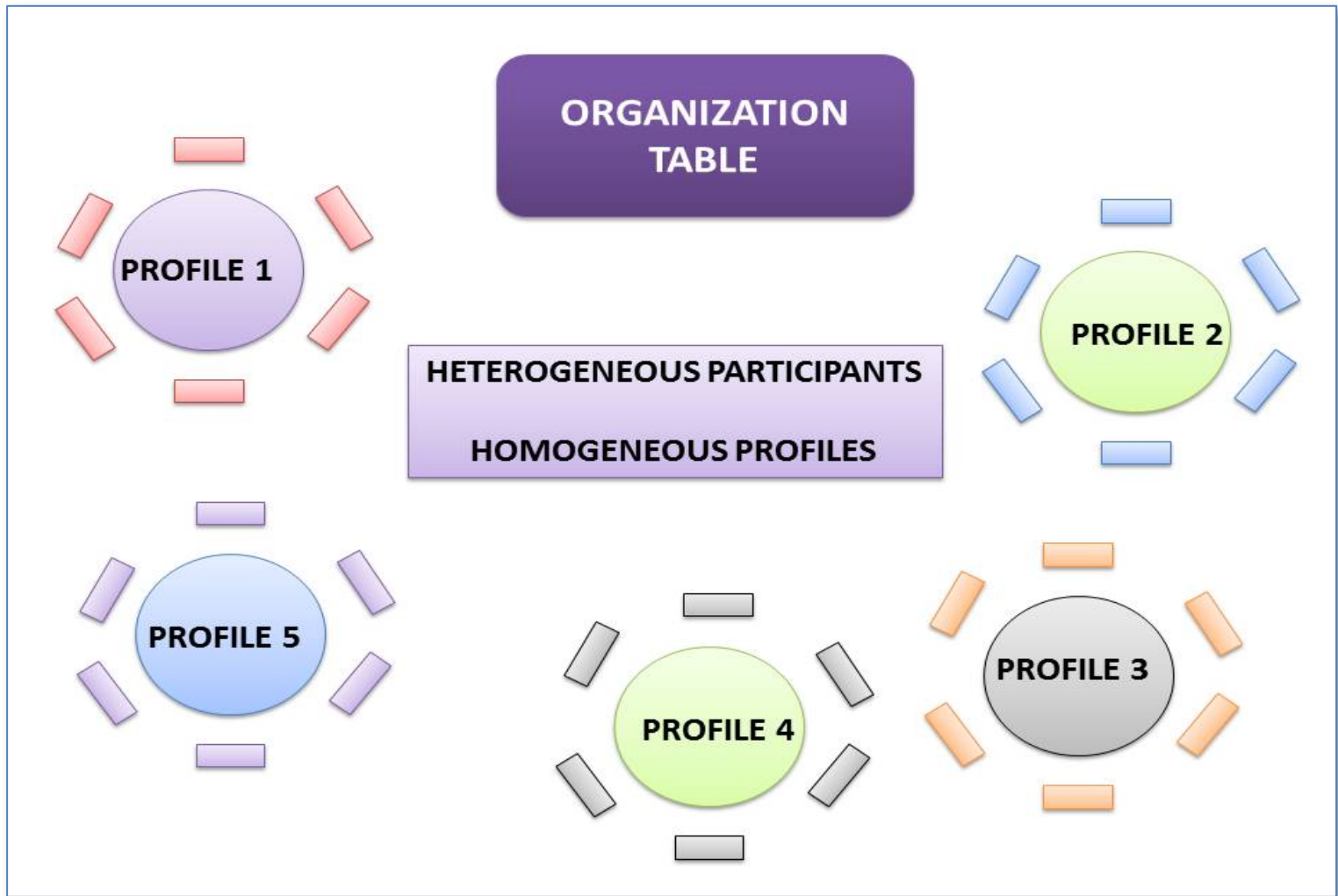
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# ECoLab

(Experiential Cooperative Laboratory)

Model of qualitative research that integrates: Focus Group, Delphi, After Action Review, LivingLab and MediaLab

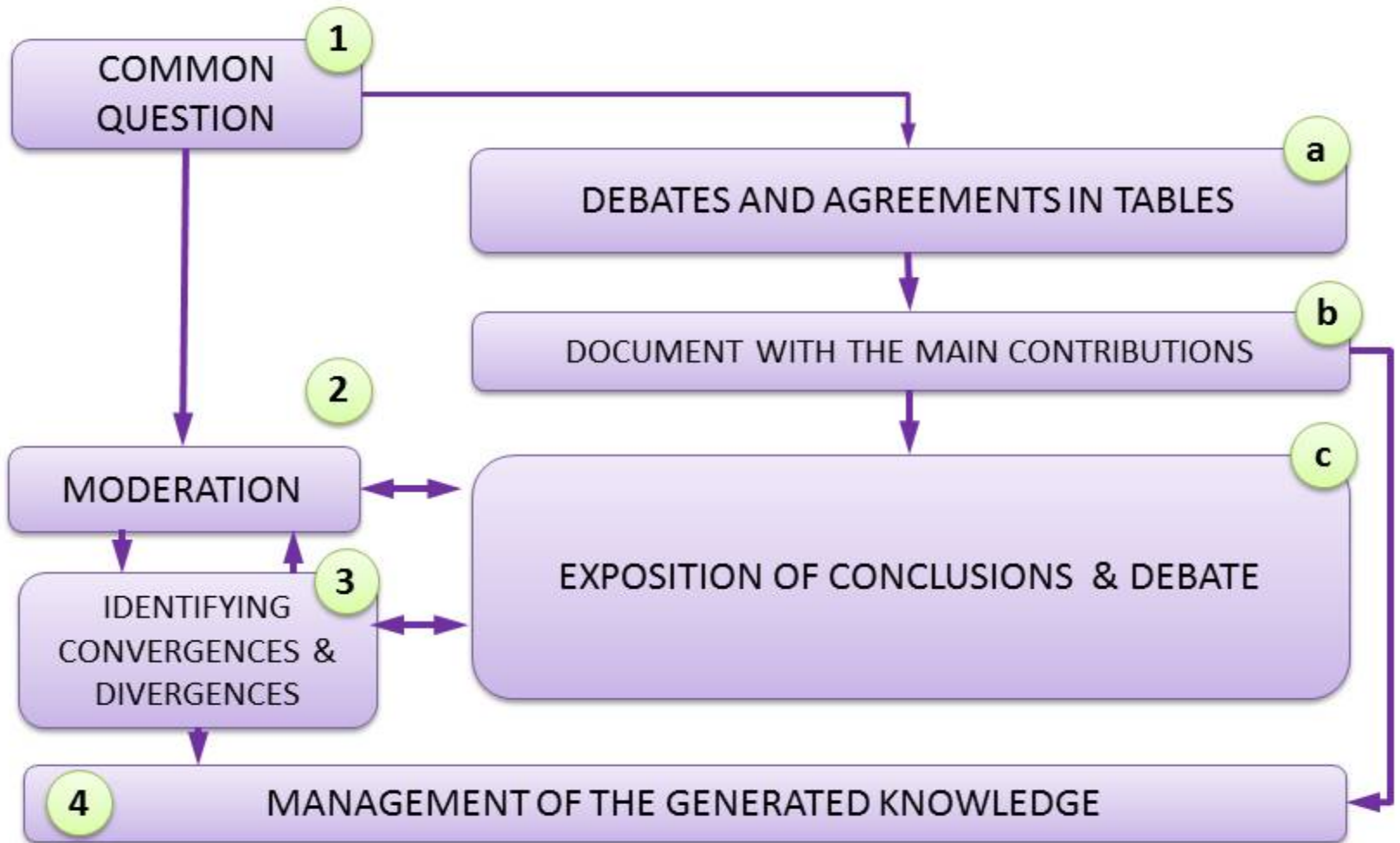
ECoLab integrates heterogeneity of participants with homogeneity in their grouping



Teach table: Participant, moderator, secretary and spokesperson

**ORGANIZATION TABLE**

**PROFILE TABLES**



***ECoLab in spiral.*** From the results of an ECoLab session, new sessions may be organized to continue working on the same topic.

***ECoLab Lego.*** Different ECoLab sessions can be considered to address different issues, but they might be related to each other.

**Objective:** to obtain an overview of the impact of *Educational Innovation at university* context and the most immediate actions to improve education.

**To achieve the objective:** social value to the action by reconciling interests and committed people to improve Education.

**Context:** Technical University of Madrid, Spain, June 2016. Session total 4 hours, one hour per question (40 minutes for debate and 20 minutes for conclusions).





**TEACHERS**

**STUDENTS**

**ACADEMIC MANAGERS**

**RETIRED TEACHERS**



Organization table: moderates the interventions of each table and realizes, in real time, a common vision of what happens in the room in a conceptual map.



## QUESTION

Q1- In what aspects of teaching should the educational innovation impact?

Q2- What changes should be most urgently made to improve learning?

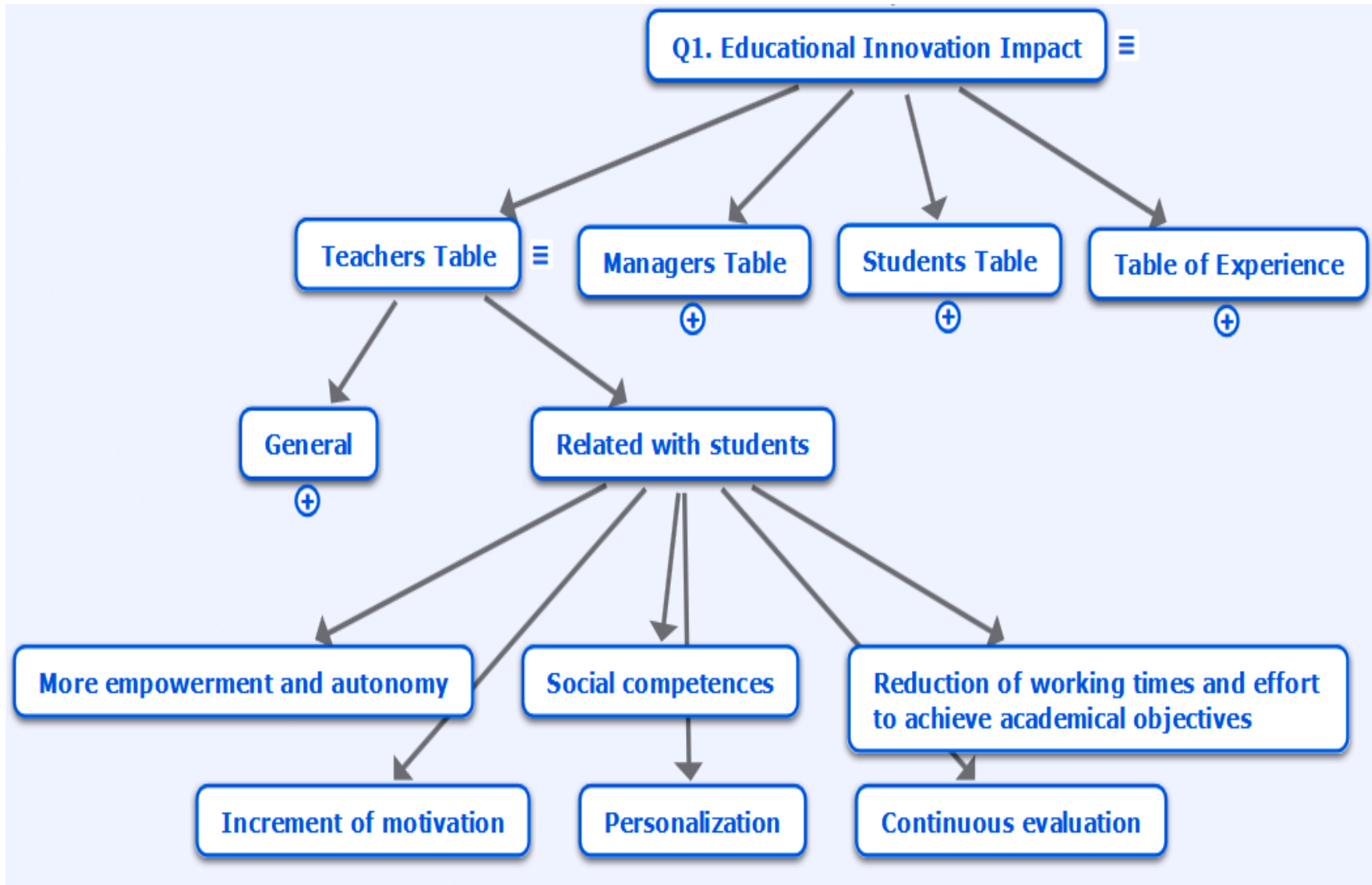
Q3- What barriers and drivers have the application of educational innovation?

Q4- Do you know any examples of educational innovation that improve the learning process? Identify some indicators that define this good practice.

**The mission of the organizing table**, in terms of the sharing, was to elaborate:

- Common aspects.
- Differences.
- Contradictions.
- Reconciliation of interests.

# Example Q1 Map



The **common aspects** are obtained from the analysis of the nodes. For example, one of the aspects, with greater convergence among the tables, was the *motivation of students*.

Despite this convergence, each table made contributions that are complementary, for this same indicator “motivation” each table approached the following way:

***Table of the experience:*** Types of motivation and reasons why students are not motivated.

***Students table:*** Direct relationship between the lack of motivation and the active participation of the students.

***Faculty table:*** The need to increase motivation is related to students' willingness to learn.

***Table of academic managers:*** Motivation should be focused on how students can acquire various competences such as self-learning and decision making.

**Also, there are different aspects** for each table and, as a result of the same question Q1, each table had different perspectives:

***Table of the experience:*** Identifying in what the students have improved and in which the teachers have been wrong with respect to their pedagogy.

***Students table:*** Encouraging the figure of the mentor.

***Faculty table:*** Orienting educational innovation to become an educational research.

***Table of academic managers:*** Working on teaching coordination between the different subjects.

1

ECoLab is a methodology that integrates consolidated methods in qualitative research with more innovative methods such as **knowledge management** and **open laboratories to citizens**.

2

It allows grading the accuracy of the information **according to the characteristics of the analysed problem**. It permits **iterations and associations** with other EcoLab sessions, to give this way a greater scope to the solution.

3

It is able to **integrate different visions**. This increases the scope of the solution, also it allows establishing relational networks among the different concepts.





Thank you very much





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