

NEWSLETTER

6st and 7st edition

Jun 2019

Object: Workshops Results

Dear Readers,

We are glad to send you the 6st and 7st edition of CmapER newsletter!

With this publication we want to keep you informed on all activities and results that will be realized by the project (sept 2017 – sept 2019).

With this double edition, we will inform about the results obtained from:

- The workshop with undergraduate students
- The workshop with postgraduate students
- The workshop with researchers and practitioners

Further information at

www.energyretrofitlearningplatform.org

Graphic novel at:

<https://www.youtube.com/watch?v=YE4aWiFtvL0>

(Currently 523 visit)

THE EDITORIAL STAFF
Dr Maurizio Sibilla
Dr Esra Kurul

Contact: msibilla@brookes.ac.uk



Testing the Cognitive Tool.

Practical learning experiences were conducted from December 2018 to May 2019 to test the CmapER. Participants were selected, taking into account their interest in the following interdisciplinary fields of expertise: a) sustainable urban development; b) low carbon transition. Members (i.e. Researchers, UG and PG students) of schools and departments of Architecture, Business, Build Environment, Climate Change and Planning of three Universities (i.e. Oxford, Oxford Brookes and Reading) attended the workshops. Researchers were formally invited, while an expression of interest was launched to involve students. Students' curricula were requested to assess their interest in the fields of expertise above-mentioned. All three workshops were based on the same duration (i.e. 25 hours) and the learning procedure.

The procedure was planned as follows:

- Activating the user's prior knowledge (individual process). According to Novak (xxxx), this first step was based on the elaboration of a List of Concepts, which is an efficacy approach to communicate their own Domain of Knowledge.
- Personalising the Cognitive Tool. This step was divided into two exercises. The objective of the first exercise is to take confidence with the CmapER. Hence, 30 minutes for reading the map were given to the participants. The next individual exercise aims to connect the participant's prior knowledge into a more complex cognitive framework (i.e. the CmapER).
- Mapping the learning activities of exchange and transfer information. Small groups (3-4 participants/group) were organised trying to achieve a high level of interdisciplinarity, taking into account the interest emerged from the prior phase (e.g. two different backgrounds, which focused on the same Domain of Knowledge).

A questionnaire was used to collect feedback.

| Cod Question | Survey question | Likert-scale response items |
|--------------|---|--|
| Q1. | This is the first time I have used this approach | (1) strongly disagree (2) disagree (3) agree (4) strongly agree |
| Q2. | I consider that the exercise of producing a list of concepts helped me to understand how to use my prior knowledge. | |
| Q3. | I consider that the exercise to integrate my knowledge with the Cognitive Tool was helped me to find out connections among concepts | |
| Q4. | I consider that the exercise to integrate my knowledge with the Cognitive Tool helped me to identify relevant issues in brief time. | |
| Q5. | I consider that the comparison and discussion of the resulting cmaps with others helped me to exchange information. | |
| Q6. | I consider this approach to be useful for understanding the opportunities to work collaboratively. | |
| Q7. | I consider that this approach helped me to understand how to integrate my knowledge into a more complex, existing framework. | |
| Q8. | I consider this approach was useful for better understanding the relevant concepts and their relationships. | |
| Q9. | I consider this approach was useful for stimulating a meaningful dialogue with other participants. | |
| Q10. | I consider the Cognitive Tool as useful tool to integrate interdisciplinary topics into the traditional courses/modules. | |

Survey questions and Likert-scale response items

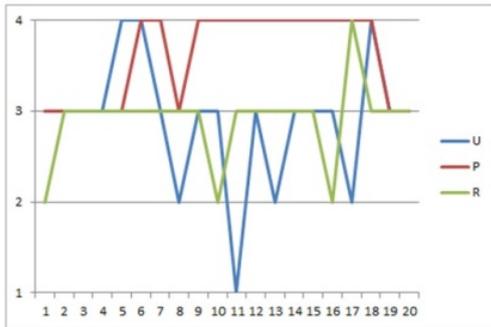


Descriptive and statistical results from workshops.

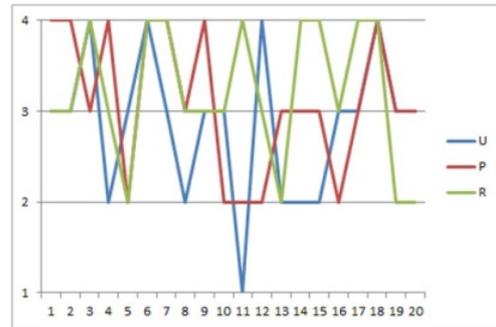
Academic position * Field of expertise/study Crosstabulation

Count

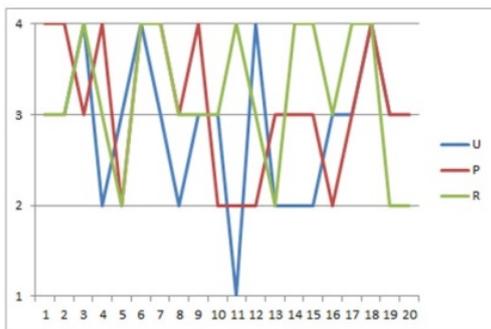
| | | Field of expertise/study | | | | | Total |
|-------------------|---------------|--------------------------|--------------|-----------|-------------|----------|-------|
| | | Architecture | Conservation | Economics | Engineering | Planning | |
| Academic position | Researcher | 6 | 4 | 3 | 4 | 3 | 20 |
| | Postgraduate | 8 | 2 | 2 | 6 | 2 | 20 |
| | Undergraduate | 11 | 0 | 0 | 6 | 3 | 20 |
| Total | | 25 | 6 | 5 | 16 | 8 | 60 |



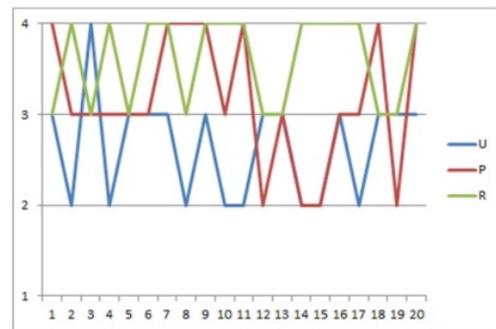
2. I consider that the exercise of producing a list of concepts helped me to understand how to use my prior knowledge



3. I consider that the exercise to integrate my knowledge with CMAPER was helped me to find out connections among concepts



4. I consider that the exercise to integrate my knowledge with CMAPER was helped me to identify relevant issues in brief time.



7. I consider that this approach was helped me to understand how to integrate my knowledge into a more complex, existing framework





cmapER

Innovative learning platform
for knowledge integration in
Energy Retrofit

OXFORD
BROOKES
UNIVERSITY



First step discussion in little group – Second step collaborative discussion



H2020-MSCA-IF-2016



cmapER

Innovative learning platform
for knowledge integration in
Energy Retrofit

OXFORD
BROOKES
UNIVERSITY



First step working collaboratively – Second step meaningful discussion



H2020-MSCA-IF-2016

Conclusion.

Interdisciplinarity is extensively considered a fundamental component for future built environment professionals. Nevertheless, the introduction of interdisciplinary training into traditional curricula is contrasted by a multitude of barriers. Among these barriers, the lack of dedicated tools and interdisciplinary learning environments emerge as a fundamental gap. This study dealt with such a gap, developing and testing an innovative learning platform for knowledge integration in Energy Retrofit as a tool for Low Carbon Transition. By doing so, this research has contributed to the development of transformative pedagogy in built environment disciplines, focusing on a specific theme, which involves both physical and social sciences.

