

# From the field

## A project-based MOOC to facilitate teacher-led innovation

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The HANDSON MOOC is a continuous professional development course for educators of all sectors. Based on the First Principles of Instruction and the Learning Design approach, the course premises are that teachers are designers and the key drivers to promote innovation via the inclusion of ICT in education. Key figures from the last edition of the HANDSON MOOC are presented to proof its usefulness as an on-going CPD activity.

## 1. Introduction

The HANDSON MOOC is an online course that promotes the inclusion of ICT in education by empowering teachers as designers. It is a 5-week online course that walks participants through the process of designing an ICT-based learning activity. The course was designed following the Learning Design Studio approach (Mor & Mogilevsky, 2013) and is project-based: starting from each participant's individual educational challenge, participants are asked to design, evaluate and refine an ICT-based learning activity.

The MOOC was implemented twice (Spring and Autumn 2014) with several changes between the two editions. The second edition (running from October 27th to November 28th) ran in Canvas, was offered in seven languages in parallel, and participants received a certificate of participation from the HANDSON project.

## 2. Pedagogic value

This project-based course addresses educators from all sectors. Its design is based on the following set of 'first principles of instruction' (Stoyanov, Sloep, De Bie, & Hermans (2014; see also Margaryan, Bianco, & Littlejohn, 2015; Merrill, 2013) :

- Confront learners with a problem, issue, or challenge, preferably, a real-life one
- Consider the problem from different (criss-cross) perspectives
- Divide the problem into sub-problems/tasks
- Provide for each task explicit support in terms of background information, examples, procedures, methods, techniques, and tools
- Accommodate learning preferences
- Draw upon learners' experience
- Stimulate learners to reflect on their experience, to share it and discuss it with others
- Practice and create artefacts in a deliberate fashion

In designing the course we also took into account the behavioural patterns that have been identified in MOOCs (Bayne & Ross, 2014; Cross, 2013; Kop, Fournier & Sui Fai Mak, 2011).

We should expect that less than 10% of attendees would complete the course. Some people would only be active in one or two activities. A third group would only download some of the resources. A fourth group would passively be observing what is happening.

### 3. A valuable CPD tool

2,632 people filled in the Join Us form (available as a Google Form from June 2014). This form was the first step to register for the MOOC. 18 participants were returning educators that had already been active in the previous edition of the MOOC. The main goal of the participants, as expressed by them in a survey, was to “improve their knowledge of ICT in education”, which is also HANDSON’s main goal.

161 participants completed the first week’s module of activities among which the **92 “Designers”** that eventually completed all the modules of the course and were awarded a certificate of participation. The Designers represent **6.1% of the initial 1515 participants** (those that created a username in Canvas). Differences between language groups could be observed in the way participation developed over the 5 weeks of the MOOC; early predictors of these different behaviours could be identified as soon as the first days of week 1.

Similar to Diana’s Laurillard (2015) statement in her report [“Anatomy of a MOOC for Teacher CPD”](#), we consider “activity in week 1 as a much better indicator of intention to follow the course than ‘registration’ at the very beginning: registration for a MOOC is not equivalent to registration for a normal university course”. On that account, 161 people actually enrolled. Taking this number as a reference and the 92 people that obtained a certificate for participation, the completion rate past week 1 ( $92/161=57\%$ ) was actually quite high.

The course received an excellent appreciation from the surveys’ respondents, with an overall satisfaction increasing from a 64% to a 90% rating during the MOOC; both designers and non-designers responses were included. Similarly, the comfort level with the environment (Canvas, ILDE) increased during the 5 weeks.

The highest agreement rates with general questions were with the following survey items:

- I plan to reuse some of the techniques I learned during the course (78.1 %)
- I enjoyed being part of a multilingual MOOC (75.6 %)

- I learned about ICT tools that I did not know before (71.9%)

Participants agreed with many statements about the course and its approach, but the highest agreement rates were with:

- Overall, the course activities have been useful (85.4 %)
- The fact that this course was offered massively to teachers from around the world has been positive (84.2 %)
- The course material were useful (81.7 %)

If we look at the negative side, the highest disagreement rates were with:

- The pace of the course has been adequate (14.6 %)
- The feedback I received from the peers helped me with my learning activities (14.6 %)
- The course has promoted valuable interaction with my peers (11.0%)
- I used the further readings page (10.9 %)

### 4. Feedback on the Learning Design Studio Approach

The Learning Design Studio approach was very highly appreciated; it was perceived as a useful tool to include ICT in education. As seen in the results from the Join Us form, “To learn about Learning Design Studio” was the second highest motivation to register for the MOOC.

The Learning Design Studio was seen as a useful approach. Highest rates of agreement applied to the following statements:

- The Learning Design Studio is a valuable resource to include ICT in education (78.1 %)
- The tools and templates provided to work with Learning Design Studio were appropriate (74.4 %)
- Using Learning Design Studio can help me improve my educational practices (73.1 %)

Besides matching the expectations of the MOOC participants, a key goal of the HANDSON MOOC was to ensure knowledge transfer; that is, to ensure that educators apply in their classrooms what they learnt.

### 5. Knowledge Transfer

The MOOC **learning activities** were perceived as highly useful. Especially important to assess the success of the MOOC was the response to the question: “Will you use in your classroom the learning activity you have created during the MOOC?” 95.5% of the respondents answered affirmatively. This is an increase if

we compare it to the response in the previous edition, where 88.5% of the respondents answered affirmatively. This might be related to a lower comfort level in ICT expressed by the first edition participants.

### 6. Conclusion

The HANDSON MOOC is a valuable continuous professional development tool for educators. Importantly, it is not a one-time course but one that may be taken as often as some participant wants to design an ICT-based learning activity or course. Following a Learning Design Studio approach, the MOOC leverages the experience and expertise of peers and the design skills of educators. To ensure proper dissemination, the course materials are available on the project website (<http://www.handsonict.eu/>) under a Creative Commons License 3.0 BY-NC-SA.

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