

How to make MOOC more interesting?

MOOC4All >> Massive Open Online Course

Disadvantages of MOOC:

- High drop-out-rate (varying from survey to survey: 40-80 percent, 90 or 96 percent)
- Not finishing any particular series of online courses
- Leaving without certificate, after dropping out

Advantages/ Benefits:

- Rising number of participants
- Improving knowledge and skill
- Chance to flexibly embedding parts of the courses into an individual curriculum
- MOOC as part of the individual learning career
- Good additional way to broaden your knowledge horizon
- In times of crises as during the current Corona Pandemics: MOOC seminars have experienced an enormous increase (400-600 percent)

Conclusion:

Completion rates are not a measure of success.
Learning is improved when students apply the theoretical concepts to practical scenarios.

Start to build a „Learning culture“ that supports and values eLearning:

Demonstrate that online learning is to be taken as serious as classroom training!

To achieve that the following points are to be taken into consideration:

- Tutorials are more motivating than normal PowerPoint slides
- Film in more informal setting
- Set expectations clear up front at the beginning
- Shorter videos are particularly engaging
- Videos that show the face of the speaker are more motivating
- Videos in which teachers tend to speak quickly and with enthusiasm are more motivating
- One should combine movement and a visual flow with a natural flow of speech

Digital Tools for Online Teaching and Learning

In cooperation with five partners from four countries (Germany, Hungary, Poland, Romania), we design a digital European educational concept and a MOOC = Massive Open Online Course on environmental topics.

This poster shows the tool kit we recommend for the development of MOOCs; the tool kit is a part of the MOOC Handbook (output 2).

- *We've chosen the 63 tools according to the requirements of Erasmus+. Criteria are data protection, pricing, open-source or not, usability, embedding codes.*
- *ubb staff has tested many of the tools.*
- *Based on our experience we framed the categories, descriptions and recommendations.*

Meeting and Training Tools (Selection) <5 tools>



We've tested BBB, GoToMeeting, Jitsi, Youtube, and Wonder,

but our favourite is ZOOM:
runs stable on all OS, low-cost tool, and we've recorded our videos in MP4 quality with ZOOM.

Learning Management Systems (Selection) <5 LMS>

We've tested Moodle and Reteach.

In the MOOC4ALL project, we're going to work with the LMS / CMS of edX.



Assignment and Quiz Tools <7 tools>

All MOOC platforms provide quiz tools, but you can also embed quizzes made with external tools.

We've tested LearningApp, Wordwall and many other tools.

Auxiliary and review tools <8 tools>

Offers some smart tools for various purposes, e.g. shorten URL, provision of photos, checking your English texts, digital translators...

Our beloved tools are



.. because the free plans of Grammarly (checks your English texts) and DeepL translator deliver very good results.

MOOC platforms (selection) <6 platforms>

Besides the big international players, we'd like to present platforms with free access and offering courses on environmental matters from Germany, Hungary, Poland, and Romania.

We've tested e.g. Coursera and oncampus.

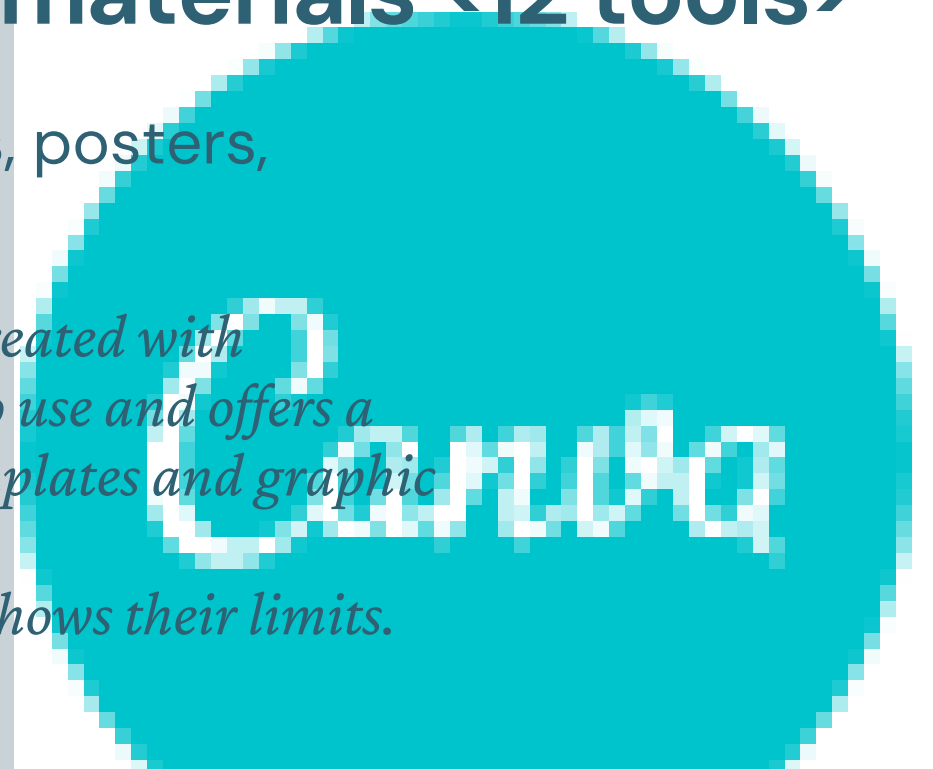
We will host our MOOC4ALL project on ... because it's free of charge and open-source.



Tools for the development of teaching materials <12 tools>

Videos, charts, posters, maps, etc.

This poster was created with Canva
The tool is easy to use and offers a wide range of templates and graphic elements.
Using templates shows their limits.



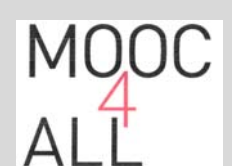
Tools for digital collaboration <20 tools>

This is the biggest subchapter in our tool chapter.

We divided the tools according to the following functions:

- joint video conferences (see box 1),
- joint access to files in cloud storage,
- joint development of content in cloud-supported documents,
- the organisation of joint work with project management tools and
- tools for the digital coordination of appointments.

In our MOOC project, we use Nextcloud, Trello, and different appointment tools.



The Waste MOOC – K – I – D – E – P Method*

(*Knowledge Input-Discuss-Experiment-Practice)

What we do:

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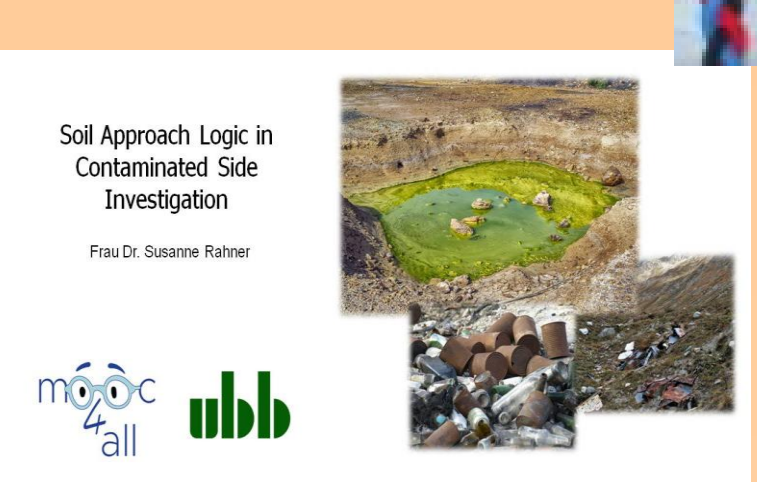
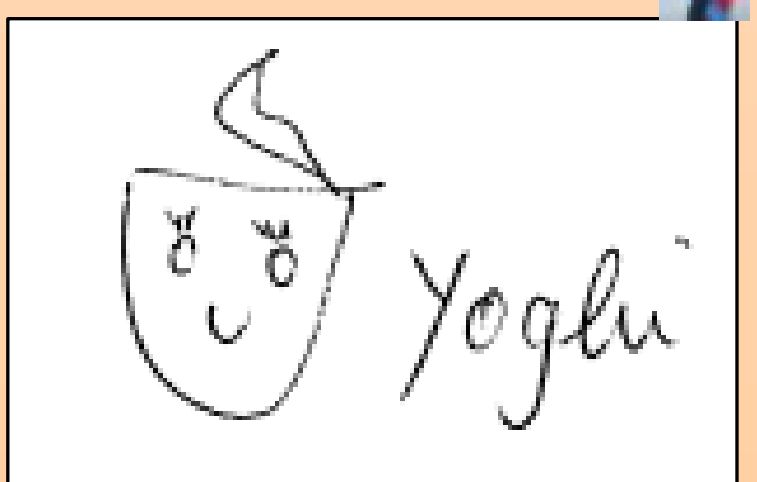
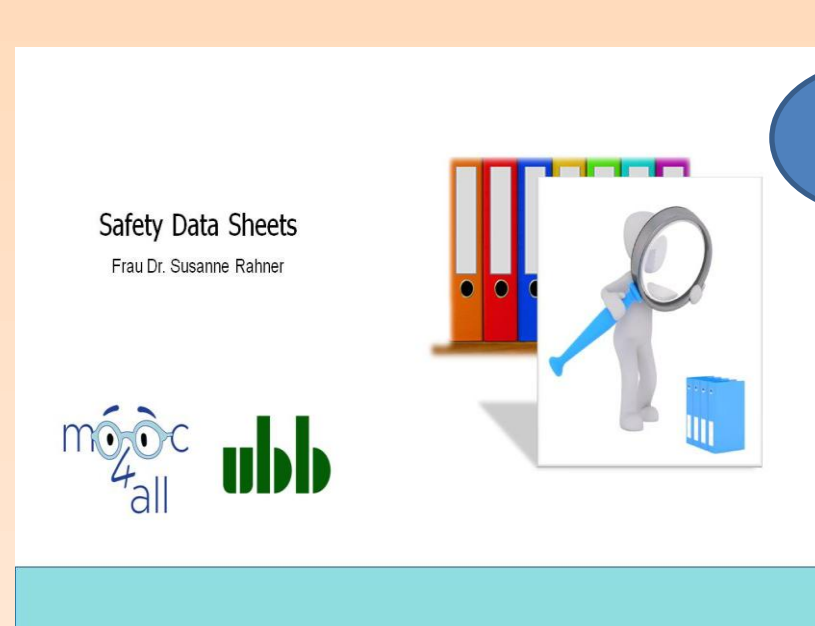
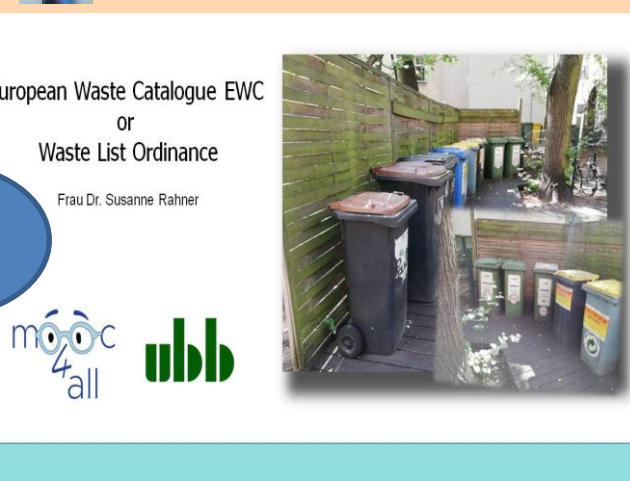
Our Goals:

- Enhance digital learning
- Enhance easier access to knowledge
- Give new and transversal knowledge
- Enable participation in remote areas
- Create international networks
- Reduce misfits between knowledge and market demands
- Create new expert knowledge
- Design EU-wide standardized education

Our Outputs:

- MOOC Concept: Open / online / digital education
- Massive Open Online Course (MOOC)
- New Training Concept and Tool Kit specific for MOOC
- Concept of the Train-The-Trainer Course for the MOOCs
- Blended Learning Units for practical field and laboratory exercises

No	Title	Knowledge Input (Key Words)	Discuss (Critical Thinking)	Experiment & Practice
1	How much waste do we produce?	Statistics in European countries, Decoupling of waste amount and commercial development, Waste treatment	What is behind the numbers? How shall we read statistics?	Field exercises, own research and discuss in groups
2	Close Cycle Management Law - Intro	Definition Waste	why is ther waste definition so strange?	Waste questionnaire
3	Close Cycle Management Law - Product responsibility	Waste Life Cycle, who is responsible, what to do with the waste,	how to reduce waste, sustainable shopping, zero waste	Field exercises, own research and discuss in groups
4	European Waste Catalogue	Waste origing, dangerous waste, mirror entries, multiple entries	why are there multiple entries, why the danger potential not the first priority?	Waste categorization exercise, optimising your waste
5	Waste separation	categorization, waste tons and bags	how to optimise your waste, to make it cheapest, zero waste possible?	Waste categorization exercise, optimising your waste
6	The green Dot	Green Dot, Pro Europe, licence payments	Illogical licence payments, unjust procedures	Field exercises, own research and discuss in groups
7	Chemical Law	potential dangers, goal,	difficulties, labeling	complex ecercises to solve
8	Ordinance on hazardous substances introduction	what is hazardous, threshold values, protection of workers	are the threshold values logical? Specifics in the definitions and implications	complex ecercises to solve
9	Ordinance on hazardous substances Safety	Safety Data Sheets, H-/P-Statements, Globally harminised Systems GHS, Risk symbols	How to find and handle the data in accident cases	complex ecercises to solve
10	Soil Law - Introduction	Soil definition, soil vs. Waste	Why is the soil definition do important with respect to waste	Soil versus Waste Quiz film
11	Soil Law - Responsibilities	responsibilities, waste owner, waste producer	trace back to the responsible soil polluter, search where and how	complex ecercises to solve
12	Soil Law	Soil sampling logics, HCl, water near or not, clay, sand, implications to pollution	Soil assessment	Field exercises, own research and discuss in groups
13	Soil sampling film	Soil sampling logics, equipment	does the soil assessment logic helps to find pollutions?	Field exercises, own research and discuss in groups
14	Story of a yoghurt pot	Plastic, danger, avoidance	can we live without plastics, who could do it, is it costly, how to do it, look beyond your life span	Field exercises, own research and discuss in groups
15	Waste Quiz	soil vs. Waste	are there logics? Why yes, why not, why could it be so?	Field exercises, own research and discuss in groups
16	Waste Pyramid	"good" waste versus "bad" waste	life on zero waste? Zero waste and economic growth - an utopia	Own research and discuss in groups



Principle:

The MOOC parts must build on one another, they must follow a strict logical frame, a „Red Thread“, the learners must feel this logic and must be able to find and explain important issues on their own, using that concise logic. Knowledge input, structured discussion must be induced by the MOOC design. In the theoretical and the field exercises, the learners must be enabled to find critical issues and act on their own. The curiosity for the next learning unit must be kept awake.

